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K. Bohlen

"Bathed deep in morning's flood of gold"
Lake Champlain in midsummer

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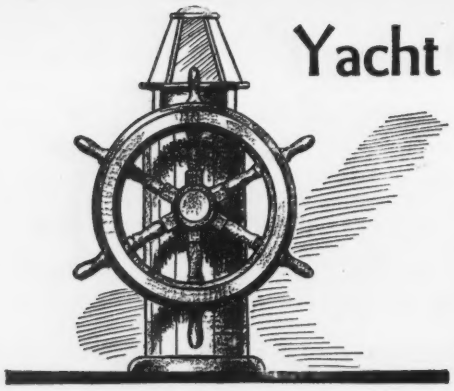
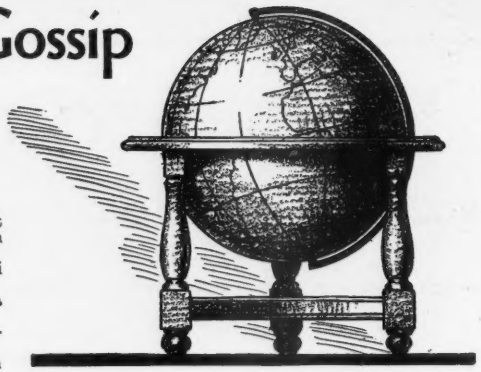


Yacht Club News and Gossip



Stewart Relieves N. Y. Y. C. Helm

AT THE annual meeting of the New York Yacht Club William A. W. Stewart was elected to succeed Junius S. Morgan as commodore. Elected to office with him were E. Townsend Irvin, vice commodore, and George E. Roosevelt, rear commodore. George A. Cormack, who has been secretary of the club since 1902, was re-elected for another term. Mr. Stewart recently bought the schooner *Queen Mab* (ex-*Vagrant*). Thus, after a period of years in steam, sail again becomes the propulsive power of the club's flagship.

\+ + +

Schaefer Heads Larchmont Y. C.

Elected to the leadership of the Larchmont Y. C., Commodore Rudolph J. Schaefer takes into office with him Vice Commodore W. G. McCullough, Rear Commodore Harvey Conover, Jr., Secretary Robert E. Carrick, and Treasurer Thomas L. Burton. In line with the new commodore's propensity for long distance racing, the club has added to its card a 300-mile race from Larchmont around Montauk Point to Fire Island Lightship and return. The event is scheduled for July 17th and is expected to bring its entrants back to the starting line in time for all but the opening day's races of the annual Larchmont Race Week. In addition to the two regular ocean racing classes there will be a third class for those yachts that are ineligible under the ocean racing rule. These will be handicapped according to the Universal Rule.

\+ + +

Point Lookout Y. C. Fully Organized

The Point Lookout Yacht Club, which is expected to become a popular haven for Great South Bay motor boatmen and anglers, is now fully organized, with its station at Gebert's dock, Point Lookout, L. I. Building operations are under way to enlarge the present dining room and clubhouse to accommodate club guests during the coming season, and, situated as it is at Jones Inlet and the entrance to Great South Bay from Debb's Inlet, the club offers every convenience to boatmen using these waters. Officers of the club are Commodore William F. Maley, Vice Commodore Pierre Vignes, Rear Commodore Theodore Rauscher, Fleet Captain Henry Gebert, Treasurer Albert Ast, and Secretary Joseph Hendrick.

\+ + +

Wellwood Country and Y. C. Elects

The Wellwood Country and Yacht Club, of Charlestown, Md., held its annual meeting in December and elected Col. Louis J. Kolb to serve as commodore for the ensuing year. Walter A. Schaufler was re-elected president of the organization and Charles P. Light was re-elected secretary. Those elected to honorary membership were Edward T. Stotesbury and Francis S. Brown, of Philadelphia; United States Senator David I. Walsh, of Massachusetts, and United States Senator Millard E. Tydings, of Maryland. The only other honorary members of the club are Albert C. Ritchie, ex-Governor of Maryland, Alfred E. Smith, ex-Governor of New York, and Mayor J. Hampton Moore, of Philadelphia.

\+ + +

Norwalk Power Squadron

The newly organized Norwalk squadron of the U. S. Power Squadrons held a get-together dinner in the closing week of the year at which guests were entertained with film depicting the work of the U. S. Coast Guard and were informed of the many advantages of membership in the Power Squadrons. The work of this parent organization is well known: to inculcate in its individual members a knowledge of seamanship and piloting, and to develop the idea that there is more, mechanically as well as ethically, to operating a power-driven boat than sitting at a wheel and watching the buoys go by.

\+ + +

Philadelphia Motor Boat Show

The 1936 yachting season in and around Philadelphia will open with a bang at the Motor Boat and Sportsmen's Show which will be held March 9th to 14th in the Commercial Museum Building. Not only is the show expected to stage the largest display of boats ever seen in Philadelphia, but it is hoped to bring together the greatest aggregation of aquatic societies in the vicinity. Among those participating will be the Delaware River Yachtsmen's League, the American Canoe Association, the Schuylkill Navy, outboard and inboard clubs from along the Delaware and Schuylkill Rivers, and sailing and rowing organizations. The show is under the auspices of the Motor Boat Trade Association of Philadelphia, and will cover all fields of sport.

\+ + +

International Snipe Races

Announcement has been made of the 1936 Snipe Class International races to be held February 28th to March 1st at Clearwater, Fla., under the auspices of the Clearwater Y. C., the Dunedin Boat Club, and the Florida West Coast Sailing Association. On the three days of racing there will be six races, open to all eligible Snipes. Chairman W. C. Brown, of Dunedin, Fla., will welcome inquiries as to methods of shipping boats to the regatta and as to hotel accommodations and related matters.

\+ + +

New One-Design Classes

The fifth unit of the Viking one-design class is now under construction at Peterson's yard, Port Washington, L. I., for Fred Hicks, son of the former Congressman from Long Island. The design, which gives promise of attaining wide popularity, is from the board of Charles D. Mower, and is an attempt to combine the best features of a cruising and racing boat with auxiliary power. A movement is under way in another quarter to launch a one-design class to fill the gap left by the gradual breaking up of the New York Yacht Club thirty class. The plan is to secure sketches from several designers and to build to the design which is adjudged most suitable for cruising and racing in Long Island Sound and offshore.

Yachting Calendar

Sail

February 1–5 — First Annual Midwinter Regatta; East Coast-West Coast Six-Metre Team Race for Nahlin Perpetual Challenge Trophy, Santa Barbara, Calif.
February 11 — Third Annual International Race, Miami to Nassau.
February 12–16 — Tenth Annual Southern California Midwinter Regatta, Los Angeles.
February 12–16 — Eight-Metre, Six-Metre, and Monotype Olympic Elimination Races, San Pedro, Calif.
February 23 — Mardi Gras Carnival Regatta, Southern Y. C., New Orleans.
February 23 — Siesta Trophy Race, Moth Class, West Palm Beach, Fla.
February 23–29 — Sunburn (Frostbite) Dinghy Regatta, Biscayne Bay Y. C., Miami.
February 28–March 1 — International Snipe Class Racing, Clearwater, Fla.
March 8 — Moth Regatta, Orlando, Fla.
March 12 — Lipton Cup Race, Miami.
March 15 — Moth Regatta, Miami, Fla.
March 16 — Midwinter Regatta, Miami.
March 20–22 — Antonia Trophy, World's Championship Moth Regatta, Melbourne, Fla.
March 21 — Auxiliary Race, Miami-St. Petersburg, Biscayne Bay Y. C.
March 28 — St. Petersburg-Habana Race, St. Petersburg Y. C.
April 1 — Long Island Sound Interclubs *vs.* Bermuda One-Designs, Hamilton, Bermuda.
April 4 — Habana-Key West Race.
April 8, 9, 11, 13 — Prince of Wales Cup Series, Six-Metre Class, Hamilton, Bermuda.
April 14–16 — Six-Metre Team Races, U. S. A. *vs.* Bermuda, for Governor Cubitt Cup, Hamilton, Bermuda.
June 15 — One-Ton Cup for Six-Metres, Gothenburg, Sweden.
June 25 — Gold Cup for Six-Metres, Hanko, Norway.
July 4 — Honolulu Ocean Race, Transpacific Y. C., San Pedro, Calif.
July 10 — British-American Six-Metre Team Races, Firth of Clyde, Scotland.
July 17 — Long Distance Race, Larchmont-Fire Island Lightship and Return, Larchmont Y. C.
July 18–25 — Larchmont Race Week.
August 2 — Freeman Cup Race, Rochester-Coburg-Youngstown.
August 4–15 — Olympic Regatta for Eight-Metres, Six-Metres, Stars and Monotypes, Kiel, Germany.

International Star Class

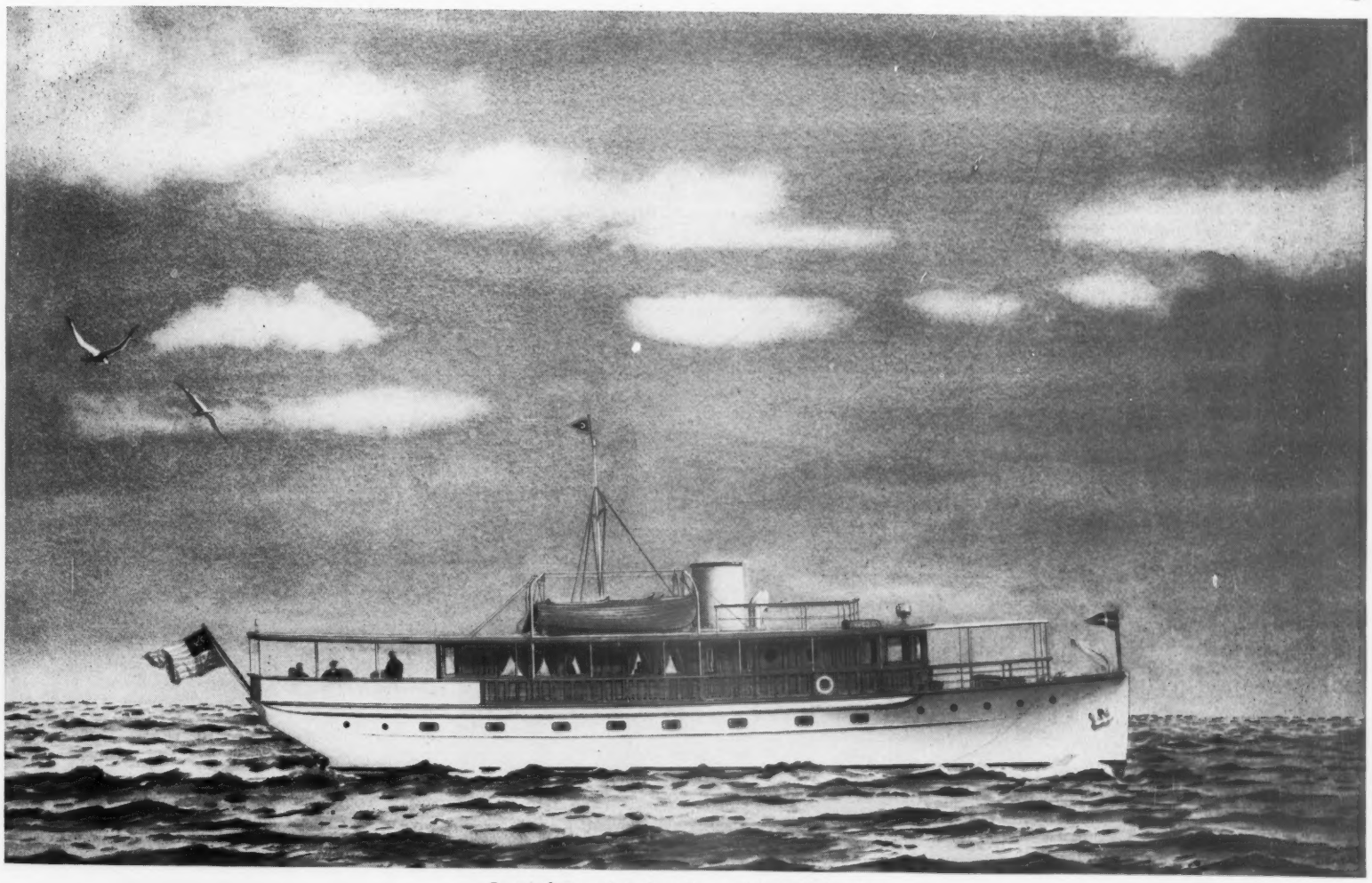
January 23–February 1 — Midwinter Championship and Bacardi Cup Series, Habana.
March 25–30 — Spring Championship, Nassau.
July 10–12 — U. S. Olympic Finals, Atlantic Coast. (Exact location to be announced later.)

Power

February 8–9 — Regatta, Junior Chamber of Commerce, Jacksonville.
February 15–16 — Regatta, New Smyrna Y. C., New Smyrna, Fla.
February 21–23 — Regatta, Palm Beach Y. C., Palm Beach, Fla.
March 7–8 — Regatta, Tampa Y. C., Tampa, Fla.
March 14–15 — Regatta, St. Petersburg Y. C., St. Petersburg, Fla.
March 21–22 — Regatta, Miami Y. C., Miami, Fla.
May 10 — Albany-New York Outboard Marathon.
July 25 — Gold Cup Race, Lake George, N. Y.
September 5–8 — International Motor Yachting Union Regatta, Detroit.

PRESENTING A NEW

Houseboat Cruiser



Innisfail. Length 85 feet. Beam 18 feet. Draft 4 feet

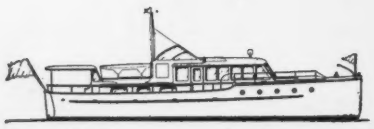
Symbol of Economy and Dependability

Especially interesting is the *Innisfail*, a new type of houseboat cruiser designed and built by Mathis Yacht Building Company for Joseph M. Cudahy, Esq., of Chicago. Extreme shoal draft permits comfortable, safe cruising in Florida waters, and the boat has the necessary sea-going ability for general use in northern waters during the summer. The highly efficient power plant that will give the *Innisfail* a cruising speed of 12 miles an hour consists of two Winton-Diesel engines, each developing 100 h.p. at 1000 r.p.m. These engines are equipped with reduction gears, effecting a decided saving in engine room space. Thus does Winton-Diesel power set the pace with advanced engineering in keeping with the demands of new boat design.

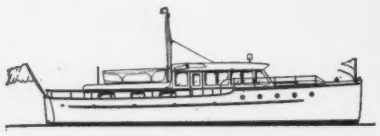
WINTON ENGINE CORPORATION

CLEVELAND · · · · · OHIO · · · · · U. S. A.

A 1936 Elco for



Elco 48 Commuter. *Speeds up to 28 m.p.h. Flying bridge and spacious aft cockpit. Sleeps four in owner's stateroom and deckhouse. Quarters for two crew forward.*

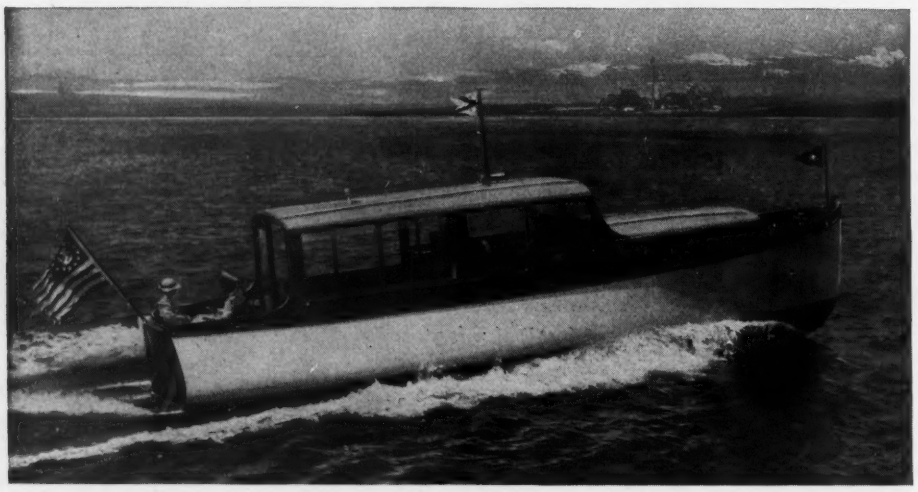


42′ to 75′ Custom Designs. *Elco's staff of naval architects are at the service of yachtsmen desiring motor yachts custom designed to their individual ideas and needs.*

48′ Twin Screw Motor Yacht . . . today's outstanding value for yachtsmen seeking a fast, powerful boat for extended cruising in complete comfort. Her sweeping lines are distinctively modern; her accommodations unusual. Below decks are three separate staterooms—owner's cabin and two single cabins. These, with divan-berths in the spacious deckhouse, sleep a party of six. Galley and quarters for two crew forward. Wide, safe side-decks with bulwarks and plenty of sunshine deck space fore and aft are specially attractive features. Elco 48 Commuter shown at left.

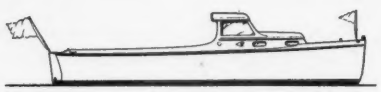
ELCO PIONEERS AGAIN!

Elco announces a revolutionary engineering development . . . FRESH-WATER COOLED ENGINES . . . now available on all Elcos as an optional extra! Eliminates salt-water corrosion, doubles engine life, cuts repairs, increases efficiency.

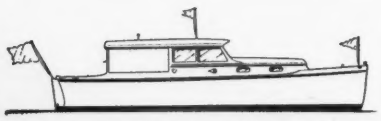


Cruisette 32 (Custom Model). New advances in design for 1936 will make the Custom Cruisette 32 more than ever the most popular owner-operated cruiser on the market. The 1936 model is beautifully "Fairlined" throughout . . . conservatively streamlined in a way that is modern, pleasing and practical. The forward cabin and convertible deck cabin sleep six to eight in full-length berths. Steering Seats, "Vibrationless Power", Sound-Proofing, Steel Engine Foundations, and many other Elco features. Speeds up to 21 m.p.h. See alternate Cruisette 32 models at right.

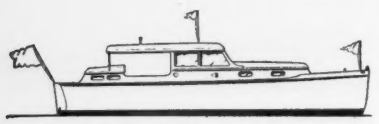
All Elcos are available with single or twin screw, gasoline or Diesel power plants—with wide range of speeds.



Cruisette 32 (Day Boat). *A new model for day cruising. Large open cockpit, helmsman's shelter, lavatory and space for dressing or for galley forward.*



Cruisette 32 (Standard Model). *Single cabin sleeps four; galley, lavatory. Protected steering position. Spacious, semi-covered aft cockpit accommodates large parties.*



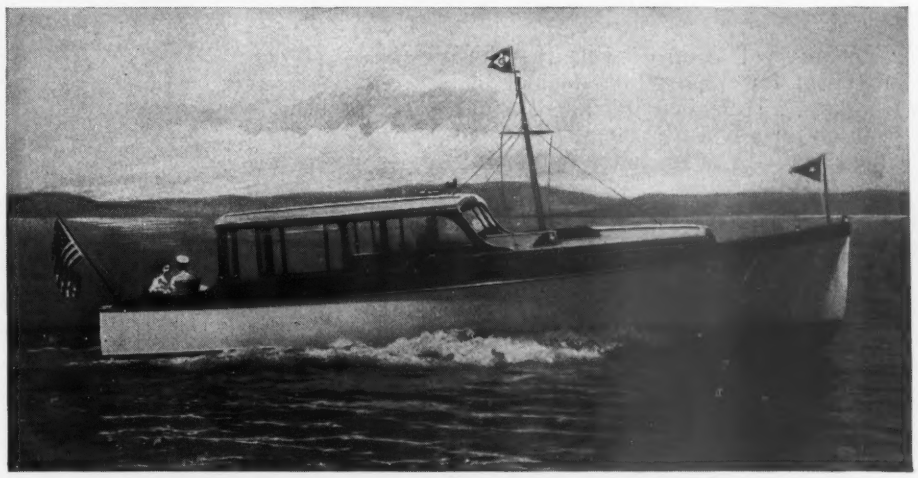
Cruisette 32 (Double Cabin Model). *Cabin forward, stateroom aft, sleeping six to eight. Protected bridge amidships—or available with Elco convertible deck cabin.*

Elco
CRUISERS

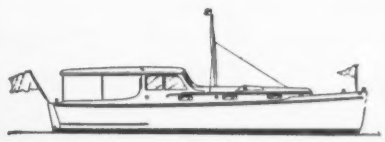
Every Cruising Need

New models . . . many new arrangements

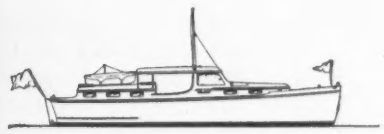
Elco presents in its 1936 Fleet the widest choice of standardized cruisers and motor yachts it has ever offered. With the addition of the entirely new Cruisette 41, the new "Fairlined" Cruisette 32, the Angler type, the new twin-cabin and other arrangements, Elco offers 18 models designed to fill every yachting need. These are all available with optional features—such as forward cockpits, deck cabins, Pullman-Dinette arrangements, fishing equipment, ship's wheels, and with different power installations. Inspect the new Elcos at the Motor Boat Show. In them you will find "plus" values in design, construction and exclusive features that only Elco's 44 years of continuous boat-building experience can give you. No finer boats are built. *Write for catalogues and prices on individual models.*



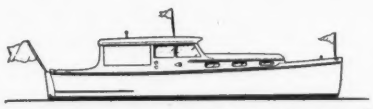
Cruisette 41 (Custom Model). Elco's newest model . . . designed for those who want an able, rugged two-cabin boat with increased comfort and separate quarters forward for a skipper. Similar in design to the famous Cruisette models, the "41" has greater length and beam, permitting a wider choice of interior designs. The Custom Model sleeps 7 to 9 in forward and convertible deck cabins. Pullman-Dinette arrangement optional. Speeds up to 25 m.p.h. Alternate models at right.



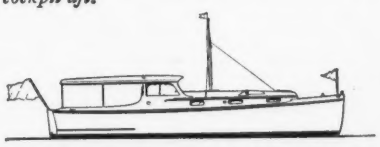
Cruisette 41 (Twin Cabin Model). *A new Elco design, offering two separate cabins forward, sleeping six, and a big, roomy cockpit aft. Convertible deck cabin optional.*



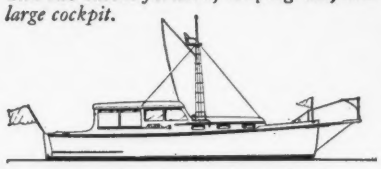
Cruisette 41 (Double Cabin Model) . . . *with cabins fore and aft of enclosed bridge, and separate skipper's cabin forward. Sleeps seven to nine. Sunshine cockpit aft. Large galley and splendid stowage space throughout.*



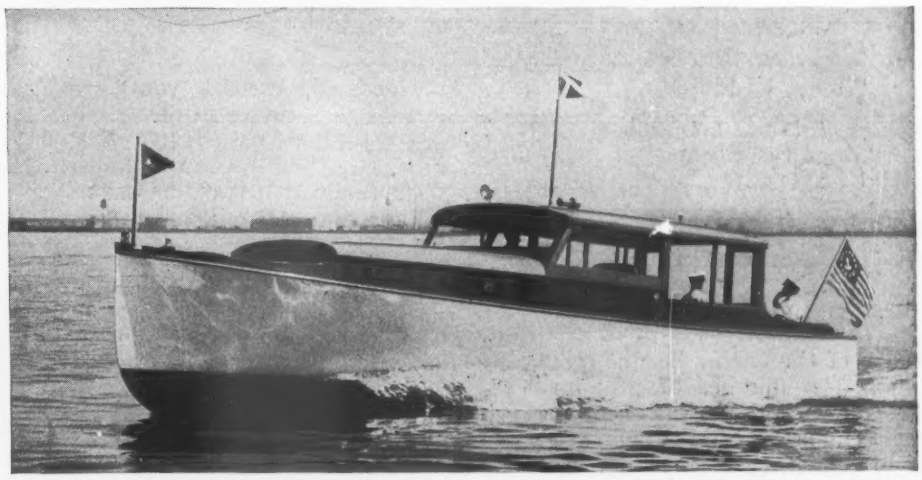
Cruisette 38 (Standard Model). *Single cabin forward, sleeping four, and 18-ft. cockpit aft.*



Cruisette 38 (Twin Cabin Model) . . . *with two cabins forward, sleeping six, and large cockpit.*



Cruisette 38 (Angler Model). *Custom Model accommodations, harpooner's pulpit, crow's nest, fishing chairs, built-in fish boxes, etc. Similar gear available on other Elcos.*



Cruisette 38 (Custom Model). A big, powerful two-cabin cruiser, built to "take" any kind of weather and to accommodate large parties—yet easily handled by the owner. Extended cruising is a joy on the "38," with spacious accommodations and extra stowage space. Forward cabin sleeps four; convertible deck cabin two to four. The Custom Model is available with or without the new Elco "Fairlined" superstructure, and offers every popular Elco feature — with the new Pullman-Dinette arrangement an optional extra. Three alternate models with this proven hull illustrated at left.

PORT ELCO

247 Park Avenue, New York City

FLORIDA OFFICE:
236 S. W. Sixth Street, Miami

Plant: THE ELCO WORKS, Bayonne, N. J.

IN THE WIND

J. SEWARD ("JOHNNY") JOHNSON'S devotion to the sea and yachting is notorious, his concern for the silken skein of commerce woven round the world by ships is imperceptible. . . . His brother Bob decided Johnny should take more interest in the flourishing business enterprise with which the two yachtsmen are associated. . . . He prevailed upon Johnny to go abroad and make a survey of conditions as affecting the business . . . On Johnny's return a directors' meeting was held. . . . The Chairman of the Board inquired, "How did you find sales in England?"

Johnny replied, "I believe Ratsey at Cowes makes very good ones, sir."

I don't know of any yacht club with a riding stable, but the Westhampton Country Club has a yacht squadron with a constellation of fourteen Stars which next season will be increased to twenty-one.

I heard about a fellow who was in the market for a marine engine and let the fact be widely known. He was besieged by eager, college-bred, young salesmen of customary high pressure methods. . . . Most of them emphasized "thermal efficiency." The prospect was duly impressed, but reserved judgment for a time. . . . Then along came a mild-mannered, elderly gent who stressed the

reliability of the engine he was selling and named a number of prominent purchasers who were enthusiastic about its performance. . . . "What about 'thermal efficiency'?" the prospect inquired. . . . The salesman smiled. "Well, sir, once we put a little pocket in the base of the motor and packed it full of thermal efficiency — but we found the engine didn't run a damn bit better!"

Captain Schlimbach of *Stoertebeker* dropped in the other day for a gam. He's hopeful of having his plans materialize for an ocean race from Bermuda to Germany next summer. . . . Yachts would rendezvous at the Onion Patch and the race would get under way about July 1st, so that the boats would reach the German port in time for the beginning of the Olympics.

At this writing all the lone navigators who were embarked upon round the world voyages in crates of various incapacity have been rescued and are safe ashore going round in social circles. . . . But I wonder just how far advanced is J. Barton Scattergood's advance agent.

A lady called up desiring to submit material for YACHTING'S fashion column. . . . How about it, readers? Would you go for a feature yclept "What the Well-dressed Yachtswoman Will Wear"?

Paul Nevin, who owns *Lord Jim* and an autograph of Joseph Conrad, calls the master's prose "orchestral." . . . If he can ever afford a small boat, Paul is going to name her the *Tremolino*, after the little gun-runner in "The Arrow of Gold."

The Marine Trades Association of New York has an "Old Timers' Rendezvous" rigged up at the Show which is worth a visit. The organization has promoted a lot of good fellowship among chaps in competing lines who in the old days thought twice before speaking to each other.

A wide-eyed, earnest youth with aspirations to a career in naval architecture consulted YACHTING'S Nestor for advice on how to launch himself. . . . The best way to start, he was told, is with an independent income. . . .

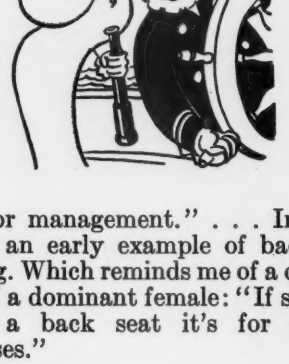
Which recalls A. Cary Smith's remark to the father who brought in his son and sought to apprentice him to Mr. Smith. "What's the matter? C-c-c-an't you b-b-uy him a p-p-eanut stand?"

The Poet's Corner of this column is usually empty, due to a dearth of verse of worth. It seems to me the owners of Six-Metre boats ought to be able to deliver themselves of some heroic hexameter.

The guy who is down to his last yacht still has a yacht to be thankful for.

It was the schooner *Hesperus* whose seams "parted," according to a despatch to the *New York Sun*. The sempstress who did the sewing on that vessel must have used bum thread.

See Hamersley's Nautical Encyclopedia for some swell definitions. Witness: "Hen Frigate — a vessel in which the captain's wife interferes with the



duty or management." . . . In other words an early example of back seat driving. Which reminds me of a description of a dominant female: "If she ever takes a back seat it's for driving purposes."

The Greatest Show (about-to-be) on Water is another miracle of Ira *Hand*iwork.

You might drop in on Morris Rosenfeld's exhibition of exquisite photographs current in the lounge of the Lexington.

Most intriguing innovation at the Show is YACHTING'S Book Department booth. . . . H. A. Calahan will be on watch there January 20th to autograph his works, and the following day he will be relieved by Howard I. Chapelle whose epic "History of American Sailing Ships" is admittedly one of the most beautiful and informing tomes of all time.

By the way, keep your eye peeled for the series of handbooks on every phase of nautical lore which YACHTING will publish within a month or two — volumes by Ernest Ratsey, "Porthole Pete" Chamberlin, Sherman Hoyt and other old masters. . . . The series is edited by Dwight Simpson and when read and digested is guaranteed to produce the complete yachtsman, who has everything but the yacht.

I am told that the demand for books dealing with boat handling and navigation has increased 30 per cent in the past year. . . . Looking into a book before leaping into a boat is becoming the rule for beginners. . . .

TELLTALE

"East. west –
that taste's
best . . ."

LOOK FOR OLD GRAND DAD ON EVERY BOTTLE
Wherever you meet
OLD GRAND-DAD
You'll discover the finest straight bourbon whiskey that ever came out of Kentucky
FOUR AND ONE HALF YEARS OLD — BOTTLED IN BOND
OLD GRAND-DAD
STRAIGHT BOURBON WHISKEY
RICHARD E. WATHEN

OLD GRAND-DAD

STRAIGHT BOURBON WHISKEY

A Good Guide to Good Whiskey

NATIONAL DISTILLERS

Goin' Cruisin'

The last supplies are brought aboard

From a painting by Rolf Klep

YACHTING

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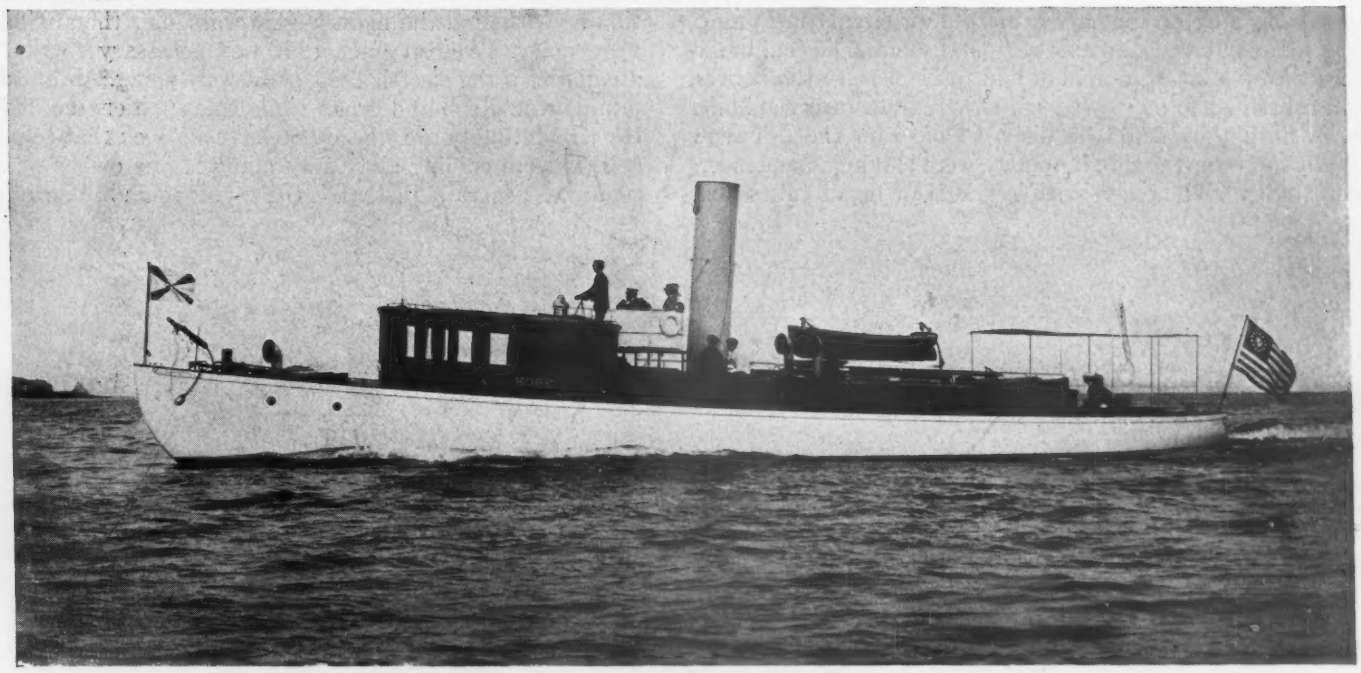


"Hope," designed by Arthur Binney in 1901, was 86 feet long and 12 feet beam. A 215 hp. triple expansion steam engine drove her at a speed of 12 knots. With her round bow and canoe stern, elevated bridge and tall funnel, she was, in her day, an up-to-date yacht

Forty Years of Progress

The Influence of the Internal Combustion Engine on the Design of Motor Yachts

By CHARLES H. HALL

Photos courtesy Consolidated Shipbuilding Corporation

MODERN marine engines have revolutionized yacht design. The truth of this bald statement is, perhaps, not as apparent to the present generation of yachtsmen, whose acquaintance with power boats is limited to the highly developed craft seen at the Motor Boat Show and wherever there is water enough to float them, as it is to those whose memories run back to the early days of the gasoline engine and the boats which it propelled. The power yachtsmen of the Nineties had to put up with boats that were uncomfortable, unseaworthy (by present standards), and with little room available for living quarters on a given length. They were dependent on the services of paid professional crews to a much greater extent than at present. In those days the man who preferred power to sail had little choice of types in his selection of a craft to meet his needs. But now, in place of the heavy, bulky steam plant that, with the necessary coal bunkers and feed water tanks, occupied the best and roomiest part of the boat, the marine engine is a light, compact, powerful machine that may be installed under the bridge deck or tucked away in the stern, while the fuel tanks may be arranged in spaces unavailable for other use. The skilled engineers and firemen required to operate and care for the steam plant are no longer needed on the motor yacht, for the owner makes the few simple adjustments that may be necessary from time to time. Even in the large, seagoing Diesel-driven craft, the engineer force is fairly small.

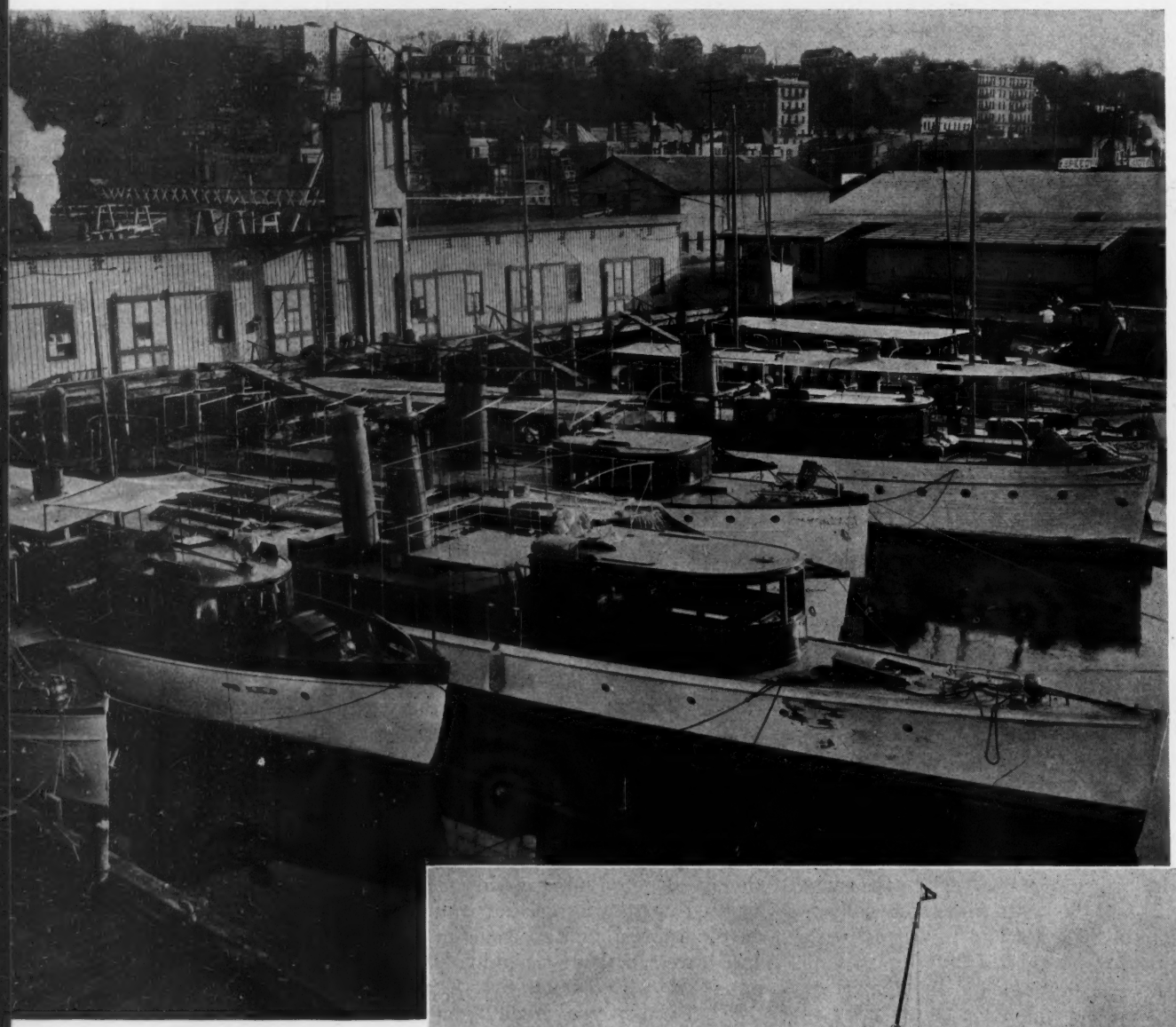
The effect on yacht design of this improvement in motive power has been remarkable. With the midships part of the yacht now available for the owner and his guests, luxurious quarters may be provided in a boat of a length which, thirty or forty years ago, would have afforded merely a couple of tiny staterooms and a crowded main cabin. With the increased power possible with less weight than in the old days, the speed of a cruiser with good accommodations may be stepped up to a figure that would once have been possible only in a special high speed design. And when it comes to real speed, we can shove a planing hull at a pace that would be impossible with a steam-driven craft of equal length.

While the internal combustion motor is as old in principle as the steam engine, its development to today's high level necessarily waited for the refinements of modern machine shop practice. James Watt, nearly a century and a half ago, was satisfied if he could get a steam cylinder within the thickness of a shilling of being a true circle. Today the skilled mechanic works to a fraction of the thousandth part of an inch. The old steam engines were built largely by hand, one part being fitted to another by a long and pottering process. Today, gasoline or Diesel engine parts are made to limit gauges so that any two will be sure to fit without even a touch of a file. From the rough casting to the finished engine, standard gauges and frequent inspection are the rule. The result is a compact, powerful and economical engine that will run and deliver its rated power with the minimum of attendance. Furthermore, it is an engine that can be sold

profitably at a moderate price and that will cost little for upkeep.

The steam boiler required ample room in front of it for firing and for drawing tubes, and room around it to keep the neighboring woodwork from overheating. The engine was fairly long and then there was the thrust bearing, also long, to say nothing of condenser, air pump, circulating pump, feed pumps, forced draft blowers, and so on. The coal bunkers took up a lot of room and had to be close to the boilers, and ashes had to be stowed somewhere in or near the boiler room until they could be disposed of — on the ash scow legally but over the side if nobody were looking. Condensers were bulky and heavy, with myriads of small tubes that pitted and leaked at the most inconvenient times, allowing salt water to reach the boilers and form scale there.

The whole plant took up the best of the yacht amidships and all the owner got was the deck and the after part of the ship. Everything forward went into galley and officers' and crew's quarters. In service, there was usually plenty of vibration and, though the main engine was quiet the auxiliaries were noisy. Even at anchor, it was necessary to run the auxiliaries if the electric light plant were going. Air and feed pumps would sob and groan while the small engine driving the circulating pump was apt to have a knock that sounded as if it were coming apart any minute. The owner's stateroom was generally just abaft the engine room bulkhead and

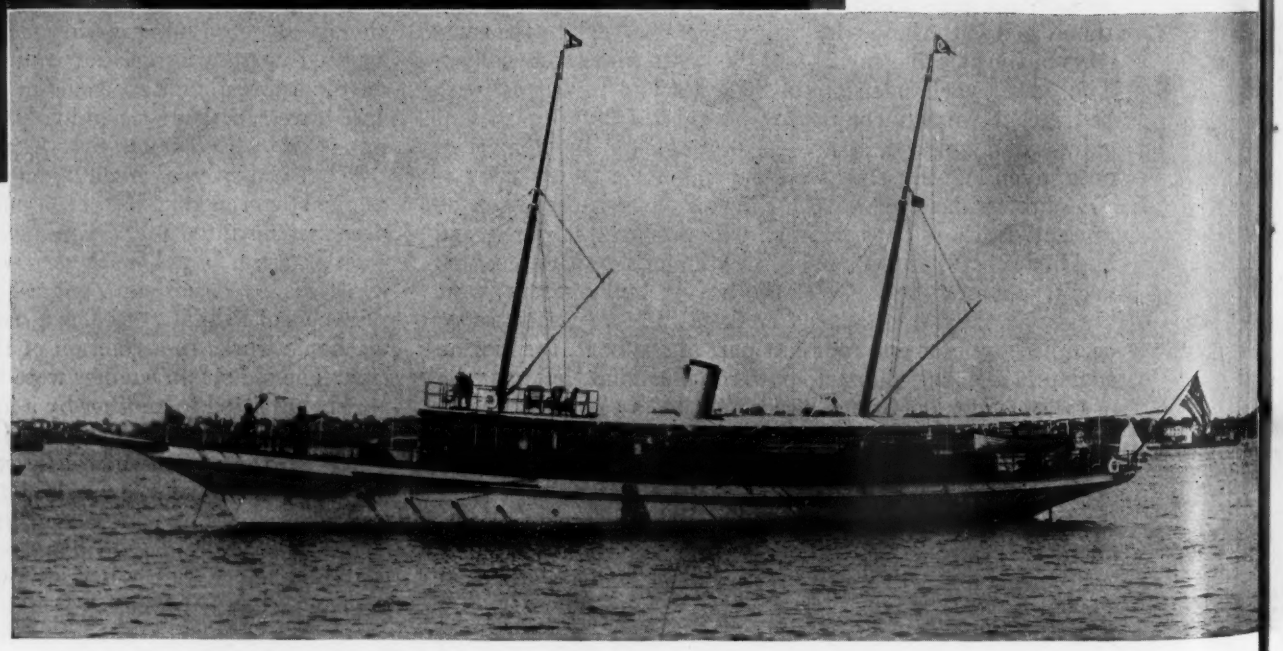


Opposite page, top. "Dutchess" was one of the early gasoline engined craft, a twin screw boat 65 feet long that aped the full-grown steam yacht in appearance. Two 38–48 hp. engines drove her almost 11 miles an hour

Right. "Scioto" was built in 1903. She was 55 feet long and 10 feet 6 inches beam. She had a water tube boiler and a triple expansion steam engine

A yacht storage basin about 1911. "Vivace," in the foreground, was one of the early steam driven commuters

Right. A typical steam yacht of the Nineties. She was about 100 feet long and had all the trimmings of the much larger vessel. The gaffs, carried as shown, gave what was then considered to be a modern touch



it was no fun trying to sleep with your head against the bulkhead and all the engine noises on the other side of it.

And you couldn't go aboard and get under way at a moment's notice; it took time to raise steam. And you had to notify the engineer some time before anchoring so that he could get his fires in shape for banking. Coaling was a filthy business, with the ship covered with coal dust that found its way everywhere on deck and below. Most steam yachts had limited bunker capacity so that the coal supply had to be considered before starting on a long port to port run.

The steam yacht's accommodations were nothing to brag about, with only the after part of the ship available for the owner and his guests. A steam yacht 85 to 90 feet long on deck would have a deckhouse forward which was the dining room and lounge, a small saloon below deck aft, a couple of tiny staterooms, and a toilet room. Floor space in the staterooms was small and the furniture consisted of a little bureau, a hanging locker, a berth and a narrow seat. A portlight or two or a narrow lean-to skylight provided a minimum of light and air. The steering wheel was on top of the deckhouse and there, in the sun, were a few wicker chairs. On the main deck, aft, there was a table and a few more chairs and a

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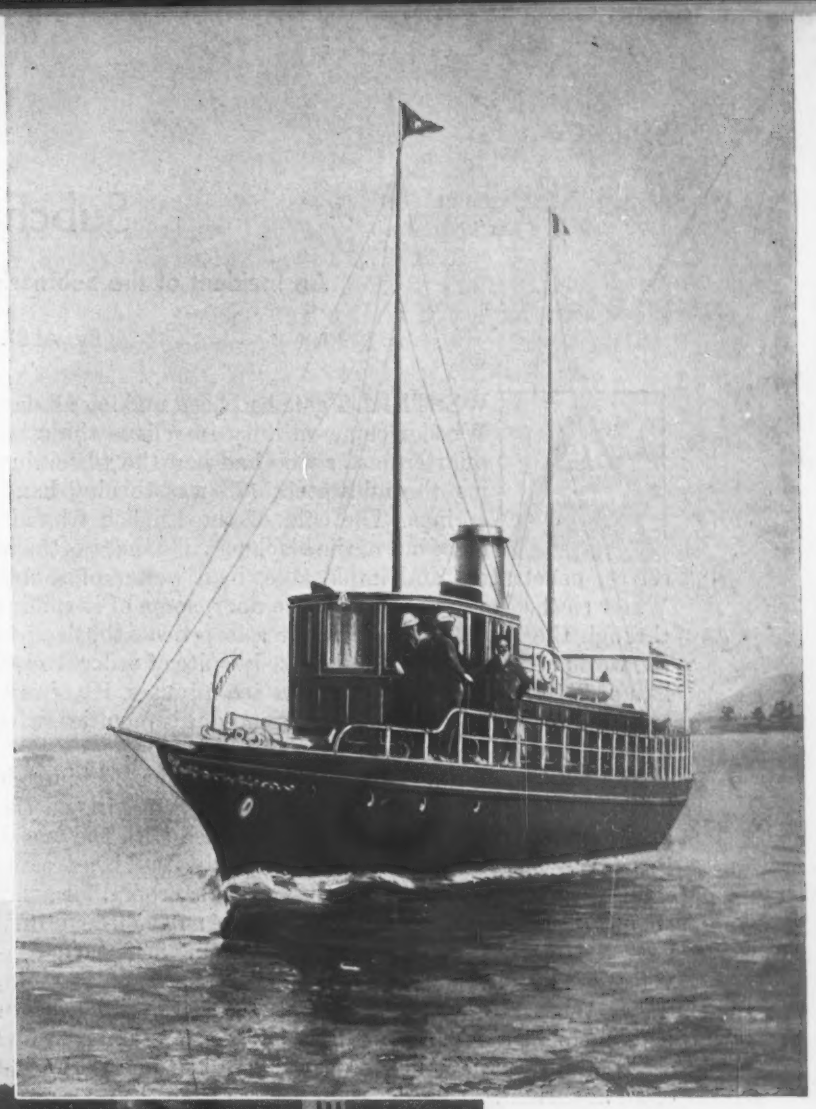

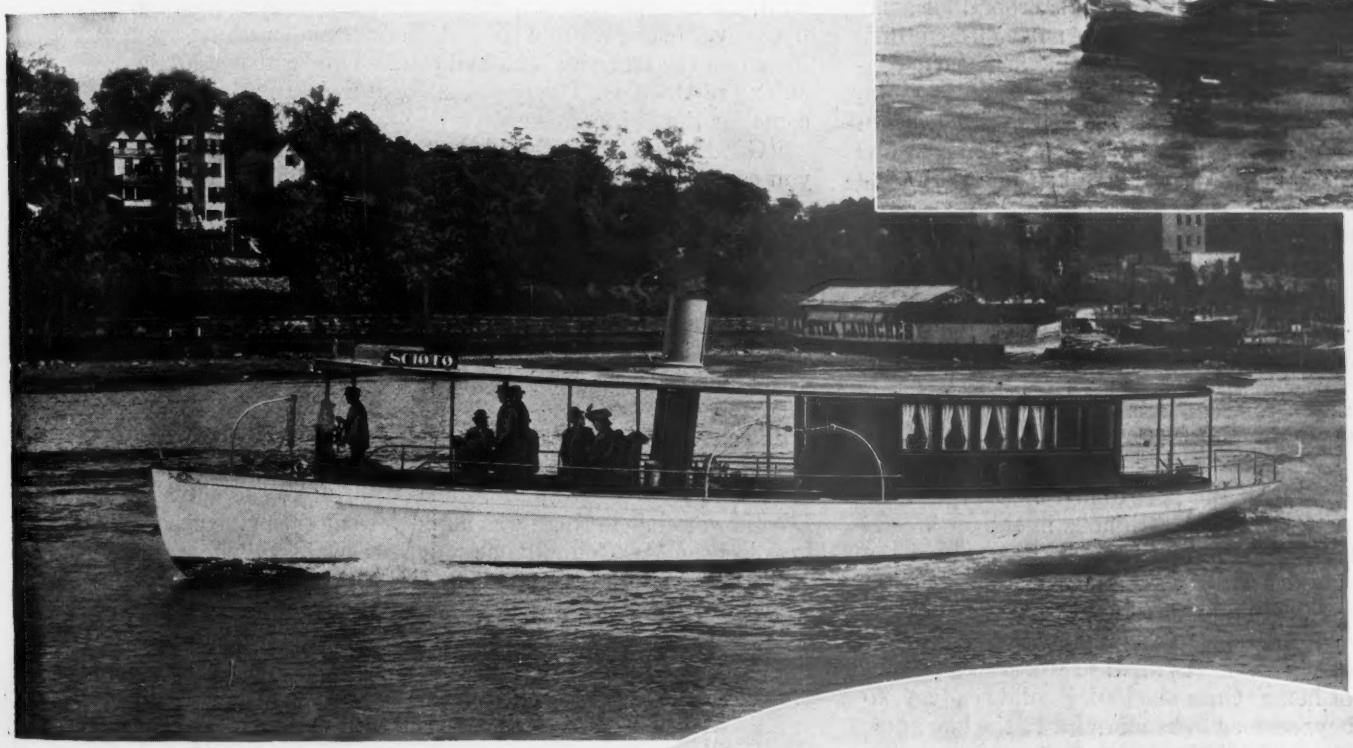

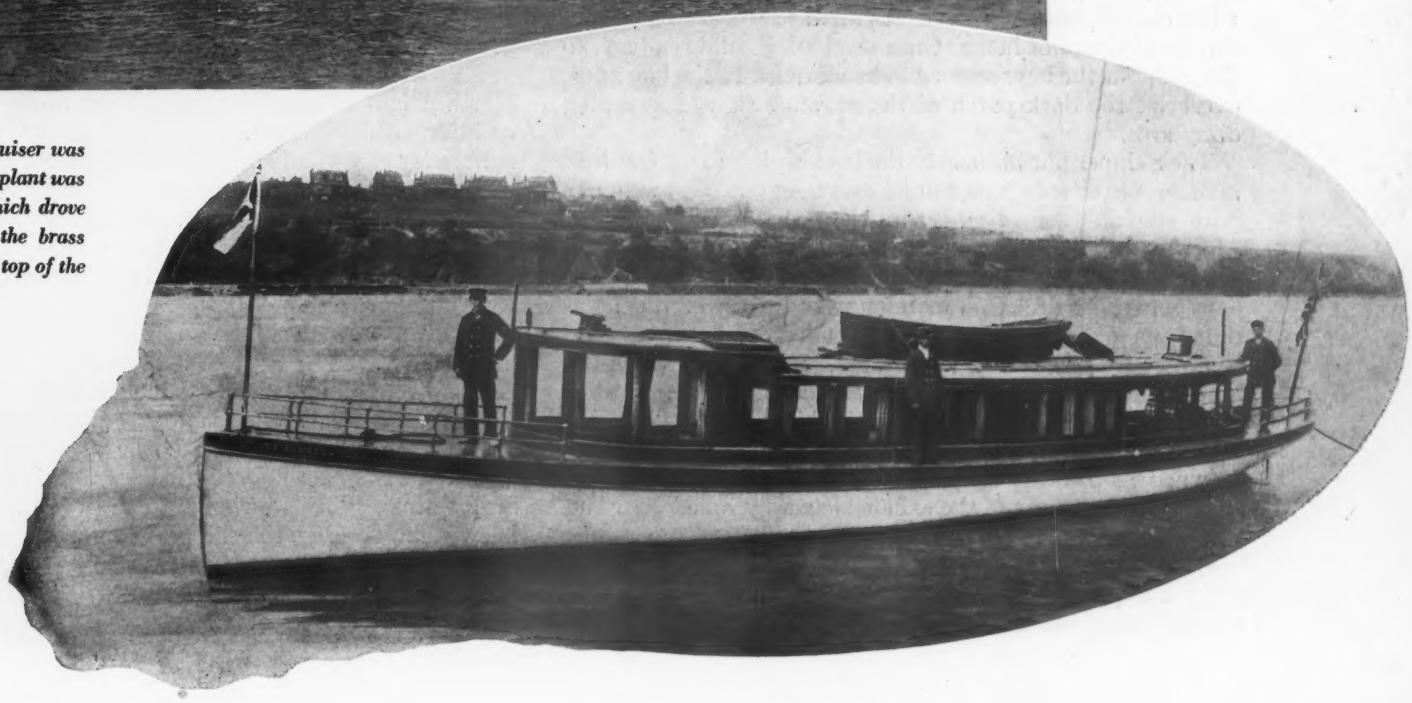

Right. This 65-foot cabin cruiser was built about 1897. Her power plant was a 16 hp. naphtha engine which drove her 8 to 9 m.p.h. Notice the brass saluting cannon mounted on top of the forward house

Subchaser Night

An Incident of the Submarine Patrol off the English Channel

By ALEX W. MOFFAT

A WESTERLY gale had been making all day. When I came on duty to relieve the other quartermaster who had had the wheel during the midwatch, *143* was turning handsprings. The cold of the English Channel came out of the blackness like the seas themselves, penetrating and implacable, in a welter of sound. Water sloshed over the pilot house floor, some of it spilling through the hatch on the Skipper asleep beneath, dead to the world after forty hours on deck. In spite of orders to call him at 3:45 I let him sleep an extra ten minutes. He always turned out promptly, in full possession of his faculties, with a pleasant word to the man who called him.

The pilot house was dark except for the shaded binnacle light by which the other quartermaster was making entries in the log while one of the seamen wrestled with the wheel. From the battery of voice tubes on the bulkhead came sounds, the mechanical clatter of the engine room, far away shouts of machinists' mates conversing; from the crow's nest the strains of "The Cowboy's Lament"; then, conversationally close, an unseen voice from the radio room, ". . . What the hell do you think I'm entertaining down here, a chicken? No, a goddam duck!" The radio room was adrift, too. The pilot house windows looked like the inside of an aquarium.

The Skipper came up the ladder, looked over the log, then tapped the barometer.

"Where's Mr. Connolly, Chad?"

"Having a hot mug-up, sir."

"Had yours yet?"

"No, sir."

He put his hand on the seaman's shoulder, "Keep her a few minutes longer, Haynes, while Chad gets his coffee. Come along."

The wind was still over the port quarter. Great, crested seas cockled up under the stern, ominous in the dark, seas which pursued us into the abyss of the next trough with a whiplash of icy spray. From time to time on our starboard bow appeared the faint, blue stern light of *177* as the unit moved in echelon formation. We clung to the bridge rail while the Skipper looked over the forward gun crew lashed in the lee of the pilot house. Once she took a solid sea back to the gun, but the boys seemed to be all right. In the blackness overhead the dark patch of the crow's nest was sweeping dizzy arcs.

The Skipper put his face to the boatswain's ear, "Get that man out of the crow's nest or he won't get down till we make port. He can't see any more up there than down here."

Aft we went in short dashes, swinging like monkeys from the life line. No glimmer of light showed on deck, the outlines of familiar deck gear looming vague in the faint emanation from phosphorescent seas. Hooded figures kept their stations in suspended animation, miserable, watchful, braced. Rails under, we waded knee deep in hissing water, flung against the Y-gun as the little ship took her next dive on the other side. The clangor of the engine room, all but drowned in the roar of wind and sea, was punctuated by intermittent thutter of the exhausts as they rolled out. The cold was like a malignant pressure.

Mr. Connolly, wedged in the lee of the meat locker at the galley hatch, nursed a mug of coffee. By way of greeting he waved a hand toward the weather.

"Morning, Pete," the Skipper yelled, "the deck is relieved."

"Good morning, Skipper. There were no messages. Would you like me to stand your watch with you?"

"No, thanks, get your sleep."

Mr. Connolly handed me his cup and sifted into the night.

Between two seas we eased ourselves down the hatch to the engineers' sleeping quarters next the galley.

Warmth and light from the galley door made the low cabin appear habitable. The engine room gang going off watch were getting themselves into the tumbled bunks vacated by the other watch, the air thick with cigarette smoke and a pervading stench of gas engines, food, wet bedding and seasickness, triumphed over by the aroma of hot coffee. Wet clothes swung on their hooks with the lurching of the ship which slopped bilge water across the floor. In the galley the vibration of the propellers set up a din of jiggling crockery, while the cook, wild-eyed, surveyed a pot of stew which had upset over his feet. From the hatch above an occasional leak hissed on the stove and the hull creaked and groaned at the cuffing of the seas. The cook managed a sickly grin of welcome for the Skipper.

"Good boy, George," said the Skipper. "It's nice work if you can get it. Make mine soup. Coffee for Chad."

I could feel the glow of the coffee like good liquor as I went up to relieve the wheel, leaving the Skipper braced in the galley door stirring bouillon cubes in a mug of hot water.

The other quartermaster was groggy with sleep and fatigue when I took over. "Watch your step going forward," I said. "It's dusty out there." The boatswain sent another man along to lend a hand opening and closing the forehatch between seas.

Since my last watch the tide appeared to have turned against the wind, for the seas were steep enough to make the helmsman's job a nightmare. As the bearing of the light on *177* did not change there was no need to alter engine speed. I could hear Mr. Connolly cursing from his bunk where the typewriter had fallen on him. The creaking of woodwork and the lash of spray against the windows formed a background of sound for the dots and dashes of a radio conversation from the radio room. Distant voices in the engine room shrieked at each other; the pumps started again.

This trip had been a special visit to a corner lot in the North Atlantic 300 miles west of Brest under orders "based on information received." As the area marked on the squared Admiralty chart had not yielded excitement and as shortage of fuel precluded further search, we were now, after four weary days, Plymouth bound. Daylight would find us inside the Eddystone within an hour of our base and a hospitable bar parlor. My mind cast ahead to the stroke of noon and the grateful surcease of liquor.

All traffic ran dark in the English Channel, convoys, transports, destroyers, patrol boats, freighters, steam and sail, east or west bound, trusting to luck, lookouts and helmsmen to keep them clear. Because in gale and darkness it was impossible to see beyond the sea ahead, we became fatalists. Collision was something we tried not to think about in those busy waters. When we changed course for Plymouth we all knew we must cross the shipping lanes.

Presently the Skipper came in. "Going to be nice when we change course," he shouted. "We'll catch it on the port beam."

"Where are we now, sir?"

"Outside the Lizard, ten miles off."

"Do we clear that tide rip we walked into last trip?"

"Plenty."

Time passed while the little ship reeled along into the night. Even after the Skipper went out again there was no talk. It seemed like an eternity before the clock struck two bells, promptly echoed by the ship's bell outside. Sweaty from exercise, I passed the wheel to the relief and sat down on the wet floor to relax in a corner. The Skipper came in again concerned with the routine of studying log book and course. He seemed abstracted. In none of the tight spots in which we had been together had he appeared anything but sure of himself. Watching the strained expression of his face as he peered from each window in turn made me uneasy.

A voice from the radio room said, "Skipper up there? C. O. on the telephone wants to know how we are making it."

"Tell him O.K."

Sparks' voice came sharp, "*Gull* calling *Eagle*, *Gull* calling *Eagle*." Then a pause. "*Gull* reports O.K., *Gull* reports O.K., end of message."

The Skipper left abruptly. When he came in again he spoke to the engine room. "Start the third engine, Chief, and throttle all three low." He rang the telegraphs to their new positions as the engine started.

It is curious how sensitive he is to the ship. She seems human to him, almost like a wife; it hurts him when she is suffering, like watching a woman in labor. He has a sixth sense about things. When he went out on the bridge I followed him. The boatswain watched him, too, as he stared up to windward, motionless, as though he were looking for something to come out of the night.

"Do you see an enemy submarine, sir?" I asked, finally.

He laughed. "I can't even see much of the one we're on. She's too small for this work," he added, "I'm going to bring that gun crew aft before they drown."

The boys came up to the bridge, spitting water and cursing. The Skipper was still staring astern, waiting. Almost absent mindedly, he detailed one of the gun crew to stand by the engine room telegraphs, an unusual order to give at sea.

Just then the order came through from *177* to stand by to change course, 45 degrees left rudder. I went back to the wheel, tense for the word of command which would simultaneously change the course of three chasers in the dark and bring wind and sea on the port beam.

"Execute!" came the voice from the radio room. I eased the wheel. In one sickening swoop *143* sheered off to port; down she rolled, down and down until I wondered if she were coming back. One leg braced against the lee wall, I fought her head back to the proper compass heading. She shuddered as the port propeller raced in the air. Crashes and curses from the voice tubes told of gear going adrift. A book from a deep rack on the port side struck my head before she rolled back. Miraculously, the blue light appeared on the starboard beam, drew ahead to its former bearing. Three bells struck, a reassuring evidence of routine in a world of chaos.

After course and position had been repeated back to the C. O., the Skipper ordered the window opened between bridge and pilot house. He appeared more alert and uneasy than before. Feeling that I must be where I could watch him, I turned the wheel back to the relief man and went out. The three engines throttled as low as possible just allowed us to keep station on *177*. The seas were steep, with a scend to them which flung the tops to leeward as they surged under us, to let us drop with the sensation of falling off a cliff. The deck watch hung on as best they could, stultified with misery, while tons of water sluiced over the deck. Wallowing in the trough, *143* rolled her rails under, and the wind whistled a wild song.

The Skipper clung to the weather bridge rail never taking his eyes from the blackness to windward. I was

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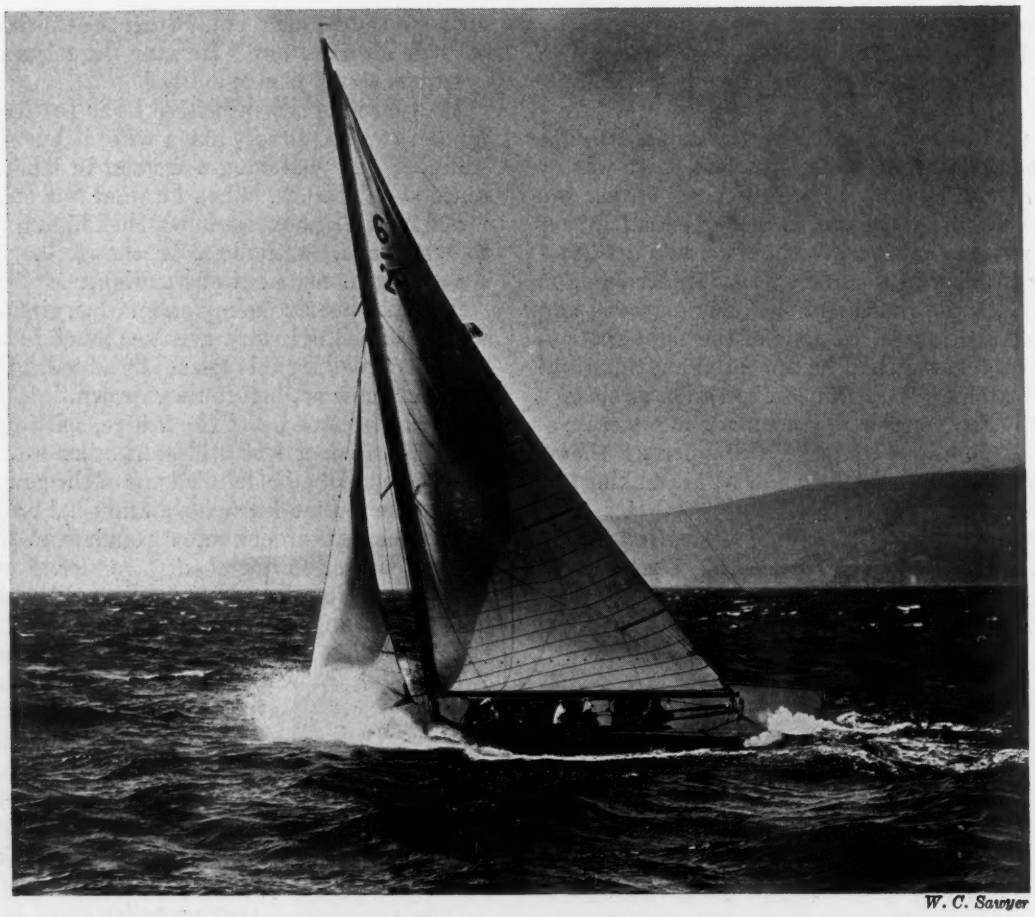
Keeping position in a gale of wind was no easy job for the little 110-foot sub-chasers

From a painting by J. O. Todahl



W. C. Sawyer

With the building of "Lanai" in 1925, from designs by Clinton H. Crane, the second phase of American Six-Metre racing began

Fifteen Years of the Six-Metres

By

DRAKE H. SPARKMAN

THE year 1936 will be the fifteenth anniversary of the birth of the International Six-Metre Class in the United States. It is, then, a fitting time to look back into the past, refresh our memories as to the different phases of development of the class and pay some small measure of tribute to these fine little boats, the men who designed them, built their hulls and rigs, and raced them with such enthusiasm that there is no International Rule class in the country that can match the "Sixes" for keenness and continuity of international competition.

From four boats, built in 1921 to fly the burgee of the Seawanhaka Corinthian Yacht Club at Cowes, in a team match with a quartet of English boats, the class has grown until no less than 65 racing numbers have been allotted in the United States. The most significant factor in the spread of the "Sixes" to nearly every racing center of importance is that only seven units of the Six-Metre fleet are foreign built. Fifty-eight were designed and constructed by Americans.

Many naval architects in the United States and nearly every racing sail boat builder has contributed to the development and success of this class which has come to be regarded as the aristocrat of small boat racing. There is hardly an "internationalist" of note on the Atlantic Coast who has not sailed a Six-Metre for some major trophy.

Take the builders, for instance. The name plates of Nevins, Wood and Jacob of City Island, Luders, Herreshoff, and Lawley, appear on all except six of the American-built hulls. The remainder were molded and fastened in scattering, lesser known yards.

The list of Six-Metre designers reads like a "Who's Who in Naval Architecture" — Crane, Burgess, Gielow, Paine, Gardner, Herreshoff, Mower, Fred and Sherman Hoyt, Luders, and Stephens.

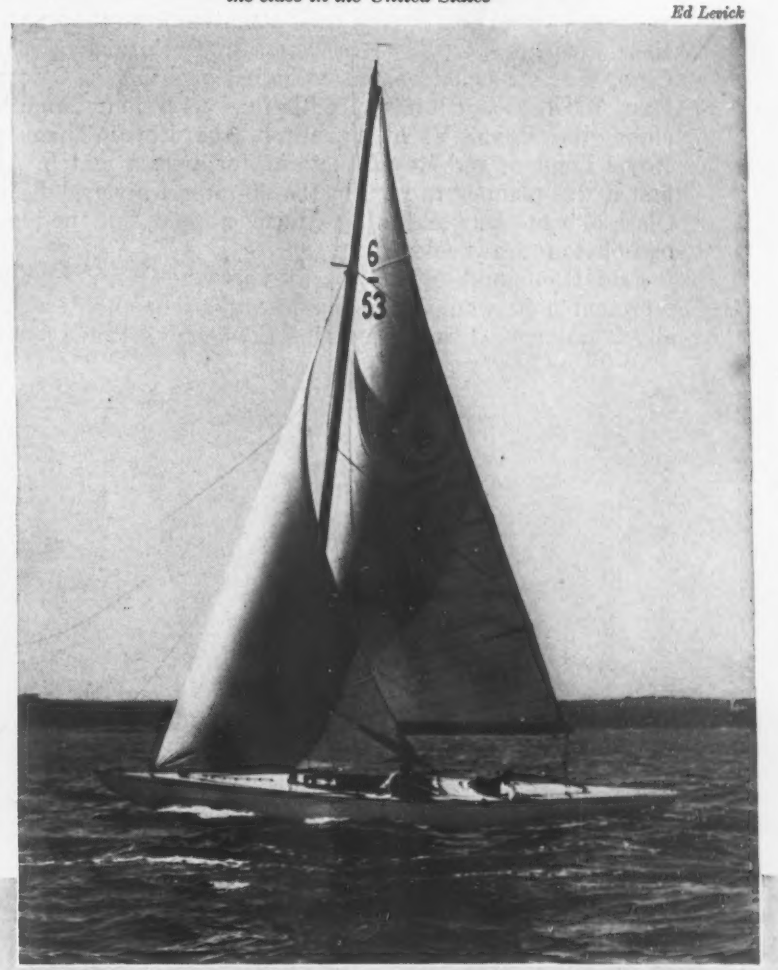
A by no means complete roster of expert helmsmen who have commanded "Sixes" in foreign competition includes Henry L. Maxwell, R. deB. Boardman, E. Townsend Irvin, Clinton H. Crane, C. D. Mallory, Cornelius Shields, Paul Hammond, J. Seward Johnson, Van S. Merle Smith, Briggs Cunningham, Sherman Hoyt, Robert B. Meyer, P. J. Roosevelt, Butler Whiting, Herman Whiton, W. A. W. Stewart, and "Bubbles" Havemeyer. That will give some idea of the sort of handling these high geared, sensitive racing machines have had.

With the country's ranking designers drawing the plans, the nation's best boat builders practicing their craft in the all-important matter of construction, the best sailmakers exerting their skill and imagination, and the most eminent small boat skippers handling the finished product, it is small wonder that the class has flourished in a country once thought to be irrevocably wedded to the Universal Rule of measurement. In this case, at least, it has been proved that more even racing from year to year has been possible under

M. Rosenfeld

"Lea," left, one of the early American "Sixes," built in 1922 from Gielow designs, was successful for many years. Below. "Cherokee," from a design by Sparkman & Stephens, Inc., is one of the modern successful "Sixes" which marked the beginning of the third phase of the class in the United States

Ed Levick



the International Rule than in Universal Rule open classes. There are ten-year-old boats still winning prizes on the Pacific Coast, and the latest Six-Metre team to represent the United States in an international test was made up of a 1930 hull, one built a year later, and a boat turned out in 1934.

Hardly a year has passed since the first "Sixes" were built here that the United States has not been represented in at least one international race or series of races in the class. Our Six-Metre owners have raced their craft in Denmark, Norway, Sweden, England, Scotland, France, Canada and Bermuda. Europeans and British Colonials have repaid these visits. The intrinsic and traditional value of trophies for which the Six-Metres have fought is well nigh incalculable. To name a few of the better known, we might mention the Scandinavian Gold Cup, the One-Ton Cup, Prince of Wales Trophy, Seawanhaka Challenge Cup, the George Cup, on the Lakes, the British-American Cup, and Santa Barbara's new Nahlin Trophy.

How did all this start? Who was responsible for giving the class its impetus in this country? What kept it

The Six-Metre team which invaded England in 1932 and won decisively. Left to right. "Lucie," "Bobkat II," "Nancy," "Jill"

Bermuda News Bureau

going? These are all pertinent questions that might be answered before we delve further into the activities of the class.

At the beginning of the last decade, American and British yachtsmen were able to turn their attention from the war to their favorite sport. The Seawanhaka Corinthian Yacht Club, that stronghold of international yachting in Oyster Bay, L. I., entered into negotiations with four English clubs, the Royal Yacht Squadron, the Royal Thames, Royal London, and Royal Victoria, for a team match. At first it was planned to race in the 20-rater Universal Rule Class R boats here and in Six-Metres abroad, but the idea had obvious drawbacks.

Paul Hammond, W. A. W. Stewart and Percy Chubb represented Seawanhaka in these negotiations and eventually it was agreed that the racing should be between four-

One of the latest "Sixes," "Challenge," from the board of A. E. Luders, Jr., shows the recent development in the class. She successfully defended the Seawanhaka Cup last summer

Right. "Maybe," the Swedish "Six" which introduced the so-called Genoa jib to America in 1927. She is now owned on the West Coast

boat teams made up of Six-Metre yachts from each country. The British-American Cup came into being. It was decided that the first country to win two matches in succession would take permanent possession of the cup.

Six-Metres were by no means new abroad. The class was well established over there but the only American boat fitting the rule was *Lady Betty*, built in 1915 by F. W. Stone, from designs of J. W. Dickie. Obviously, this would not do, so American designers, total strangers to the International Rule, were called upon to produce four boats to send to Cowes in 1921 to meet the pride of England's fleet.

The firm of Burgess & Paine turned out *Jean* and *Sakie*. The late William Gardner designed *Montauk* and *Grebe*. To England went these forerunners of our largest and most active International Rule class and absorbed a 117 to 88 defeat on points from the British quartet. Not a particularly auspicious beginning in some respects, but from another point of view not at all disappointing considering our unfamiliarity with the rule.

A return match was scheduled for Oyster Bay in 1922 and the interest aroused by the inauguration of the British-American Cup series was reflected in the rush to build boats to try for places on the American team. No less than thirteen "Sixes" were built in this country in 1922, the greatest number in any single season in the history of the class.

In this boom year ten different designers went to work Sidney Herreshoff, Charles D. Mower, Clinton H. Crane, Addison G. Hanan, Frederick M. Hoyt, W. Starling Burgess, Frank C. Paine, C. Sherman Hoyt, and John Alden toiled over their boards. Nevins, Wood, Lawley, Herreshoff, and Jacob put their best boat builders to work.

Grebe, a short-ended boat with good beam, experienced consistent success under the handling of Richard deB. Boardman and E. Townsend Irvin, and was for years the heavy weather "ace" of American teams. She made the team in 1922 when the fleet was enlarged by the addition of *Cygnet*, *Priscilla*, *Peggy*, *Ballyhoo*, *L'Esprit*, *Clytie*, *Ace*, *Mosca*, *Lea*, *Nanwa*, *Syce*, *Viva* and *Undertaker*.

Of this fleet, *L'Esprit*, the design of the well-known amateur sailor, Addison Hanan, *Clytie*, which as *Clio* is still carrying No. 9 in Pacific Coast racing, from Fred Hoyt's board, and *Lea*, designed by Henry J. Gielow, proved to be outstanding boats. *Lea* had years of racing success before she was outbuilt and is still in use on Long Island Sound for day sailing.

Mosca, a scow, and gaff-rigged instead of carrying her canvas in a jib-headed main, the rig which had become accepted as the most efficient for racing, never did well. *Nanwa*, a clipper-bow creation of an amateur designer, was slow. *Viva*, built for a Larchmont Yacht Club Syndicate, was an extremely narrow hull and a lovely looking little vessel, but unfortunately was not as fast as she was attractive. *Undertaker*, whose name was later changed to *Question*, took a while to get going. She eventually proved her worth by winning the Childs Cup on the Sound in 1925, her competitors including the successful British-built *Betty*, which

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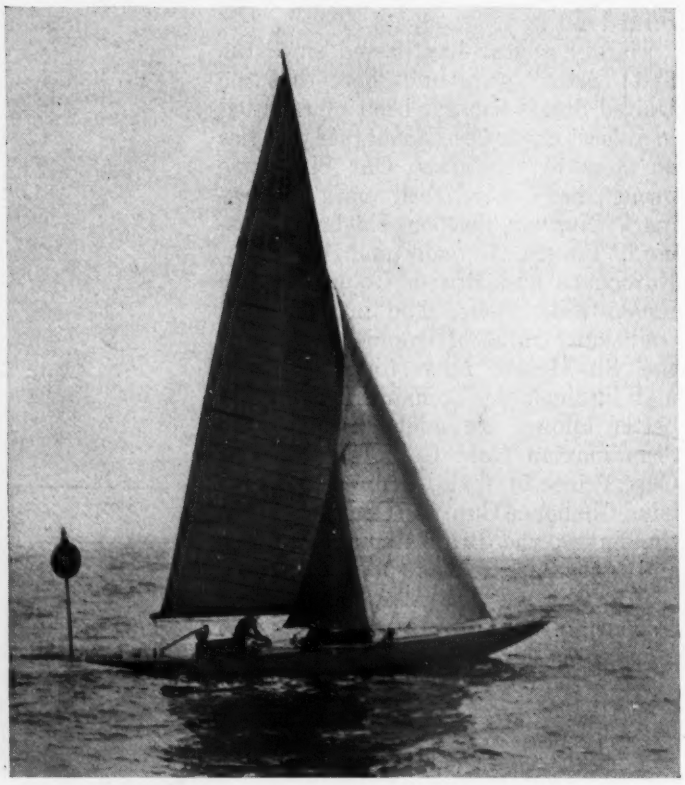


This old timer was built about 1902 and had what we then called a "hunting cabin"

Boats for Big Game Fishing

By

GEORGE F. CROUCH

HEAD out to sea, go just a little way, barely out of sight of land, and, as far as anyone can tell, you are in the old ocean with Eric the Red when he sailed to these shores from Iceland almost a thousand years ago. The waves are just as large and no larger, the color is as blue, and the sea teems with the same abundant life as it did in the old days. Ashore, the change has been almost unbelievable — forests have been cut down, paved and graded roads built over hill and through valley, fertile fields and cities are found where but a short time ago was virgin territory filled with game. Even the N. R. A. made no plans for regimenting and regulating the sea. It is the only accessible unspoiled, untouched, changeless area remaining on our globe — accessible to anyone who owns a boat, be she large or small.

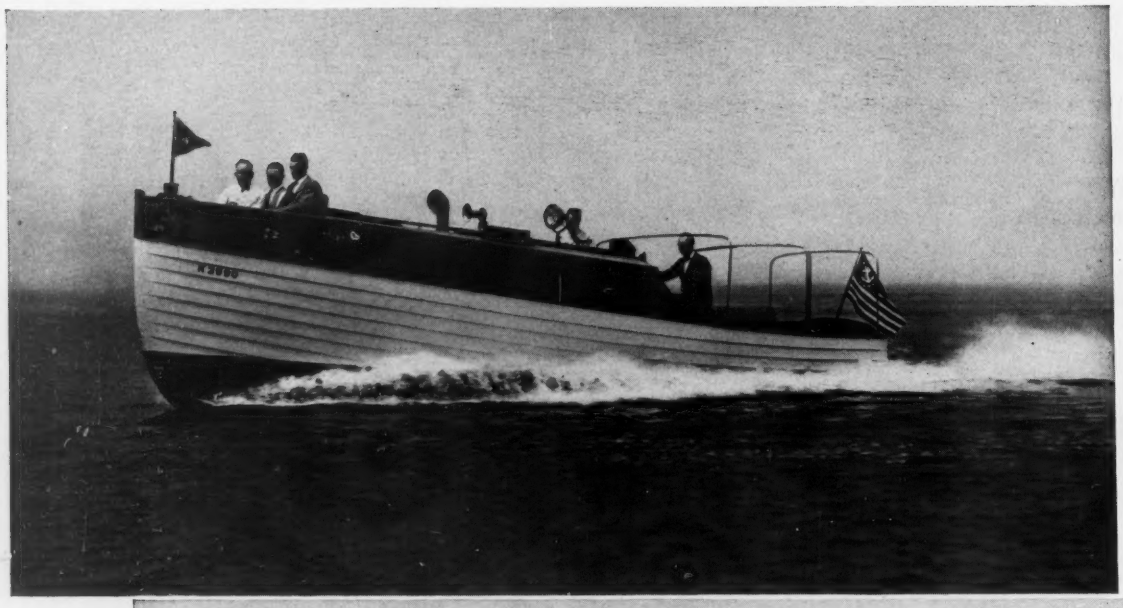
We are discovering that in the sea — truly our "last frontier" — the big game fish can and do furnish sport which makes all other sports seem tame and lacking in color. Compare this great, natural, unspoiled playground with artificial game preserves stocked with incubator-raised pheasants, with posted trout streams stocked with liver-fed trout, the banks lined with a hundred anglers for each eight-inch fish. It is easy to understand why the yachting magazines and even the daily papers are filled with photographs and stories of this most fascinating sport.

Suitable water for deep-sea game fishing exists at the very doors of our large seaboard cities. From Cuba to Nova Scotia, record breaking fish have been taken. New York City is particularly fortunate in having excellent deep-sea fishing off the New Jersey and Long Island coasts, while Block Island has long been famous. New fishing areas are continually being discovered, some even during this past year. Again, compare this with the regions, few in number and largely inaccessible, where decent hunting and fresh water fishing may be found in the United States today. This new sport of taking enormous game fish from the sea with rod and reel bears little resemblance to the gentle art of Isaak Walton. Far more closely, it resembles the roping of a wild horse, or a contest of wits with a savage tiger.

Fortunately, market fishermen do not pursue the great game fish — with the exception of swordfish — but try, rather, to avoid them because of the damage to gear and nets. So far, sportsmen have made no impression on the number of tuna, marlin, tarpon, and swordfish, so that no regulations have been made to govern the taking of these fish.

From the point of view of the naval architect and boatbuilders, this growing sport is of great importance, involving as it does special requirements in boats to be used for this purpose. Scarcely a copy of YACHTING has been published during the past three years which does not contain some plan, photograph, or story about boats for this purpose; but so various and diverse are the methods used, and so different the water conditions in which the boats work, that no particular type has been accepted as the sole solution of the many problems.

For many years Block Island has been the center of a sizable fleet of market fishermen — if so one may call them — who pursue the swordfish with the harpoon. Fully fifteen years ago, William H. Hand, Jr., New Bedford naval architect, became interested in swordfishing as a sport, and fitted up his own schooner for pursuing this game. Swordfishing equipment has often been described. A pulpit is built out on a stand ahead of the bow; on a sailing vessel carrying a bowsprit, it is on the tip of the bowsprit. The harpooner takes his place in the stand and drives the iron into the fish which is



One of the first of the "Play Boats," designed and built by Consolidated for the fisherman. She was 34 feet long and 8 feet 6 inches beam and was driven about 23 m.p.h. by a 180 hp. Speedway engine. A 16 hp. engine, driving a folding propeller, supplied power for trolling speed

Below. "Marlin," designed by Eldredge-McInnis and built by F. D. Lawley for Edsel Ford, came out in 1931. She is 51 feet 6 inches long and 12 feet 7 inches beam. Two Sterling Dolphin engines give her a speed of 28 m.p.h. Notice the harpooner's pulpit forward, used when after swordfish, and the engine controls on the after deck for handling the boat when landing a big one

basking on the surface. This does not sound as exciting as fighting the monster on rod and reel, but that there is plenty of fun in it is evidenced by the growing fleet of pleasure boats which carry the harpooner's pulpit. In order to sight the fish basking on the surface, it is usual to rig a crow's nest on the mast where the lookout is stationed, and some boats have gone so far as to carry an auxiliary steering device up to this position so that the lookout can actually steer the boat. Several of the Block Island market swordfishermen have this auxiliary steering wheel and one privately owned motor boat is fitted with an electrical helm control which can be taken to the crow's nest.

Harpooning swordfish, however, is hardly the sport which we are considering. The dyed-in-the-wool rod-and-reel enthusiast looks upon it with much the same disdain that the dry fly trout fisherman feels toward the man who swims an angleworm downstream into a trout's hiding place. In other words, "it isn't cricket."

Boats for taking large game fish with rod and reel are of all sizes and types. Much depends upon the fish pursued. Until one has talked with the men who are experts, it seems impossible to believe the tales about the size of some of the monsters that are hooked. For instance, Atlantic tuna weighing as high as 1,000 pounds have been caught with rod and reel and there are well authenticated cases of fish which were estimated to run close to 2,000 pounds which were hooked but were not brought to the boat. In other words, the big ones got away. Tarpon, on the other hand, seldom run over 200 pounds. To the tuna fisherman, the tarpon is a little fish. Marlin have not yet been caught equal to tuna in weight but very large ones have been seen and have taken bait. Almost anything can happen when conditions are right as far as the size of the fish is concerned. One of the largest tuna ever killed was taken from a 14-foot dory.

In size, the ideal fishing boat is not much less than twenty feet nor over forty feet in length. Above all, she should be seaworthy no matter what her size, for fishing is done in the open sea. Fish have been played for as long as twenty-seven hours and the battle has covered as much as thirty miles. At sea, conditions may change greatly in this time. Seaworthiness is, therefore, far more important than mere speed, although many fisherman today demand that their boats have a very good turn of speed in order to reach the chosen fishing spots within a reasonable time. For instance, at Block Island the best tuna fishing seems to be thirty or forty miles out from the island. A seven-and-a-half-mile boat would be four to five hours getting out and another four to five getting back — a long and tedious offshore journey for a

small boat. About eighteen or twenty miles an hour seems to be the desired top speed at present.

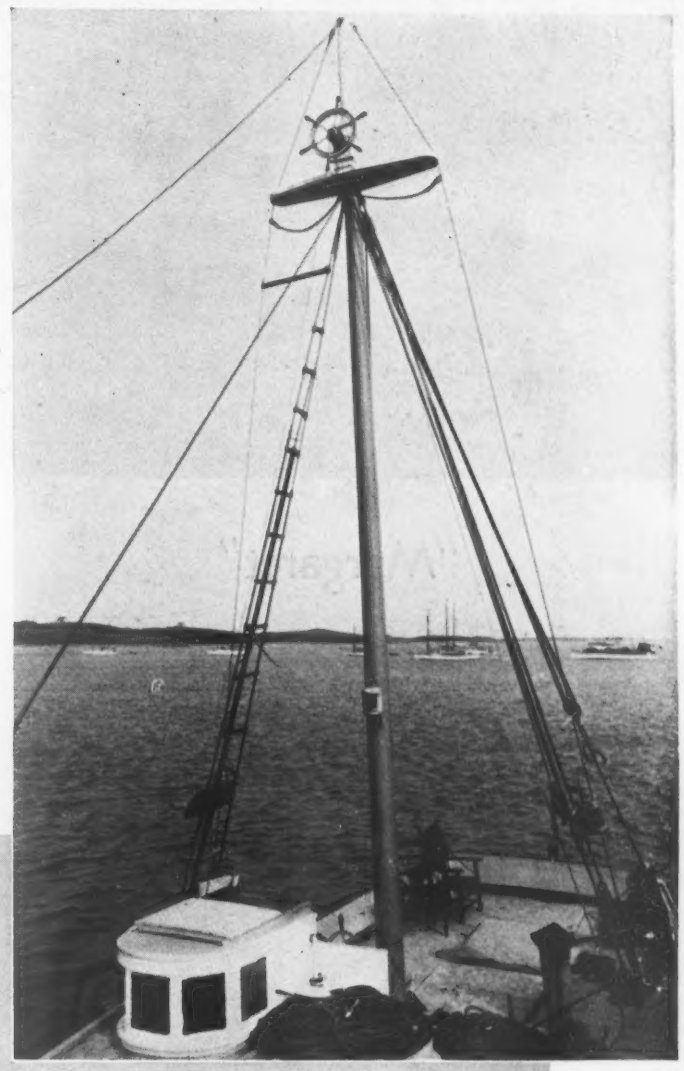
As trolling is done from the stern, the after deck should be low and clear, the awning, if any, being stopped short of the after end of the cockpit. Many of the stock boat manufacturers offer their regular line of cruisers modified in this manner for deep-sea fishing and the boats have more than satisfied their owners.

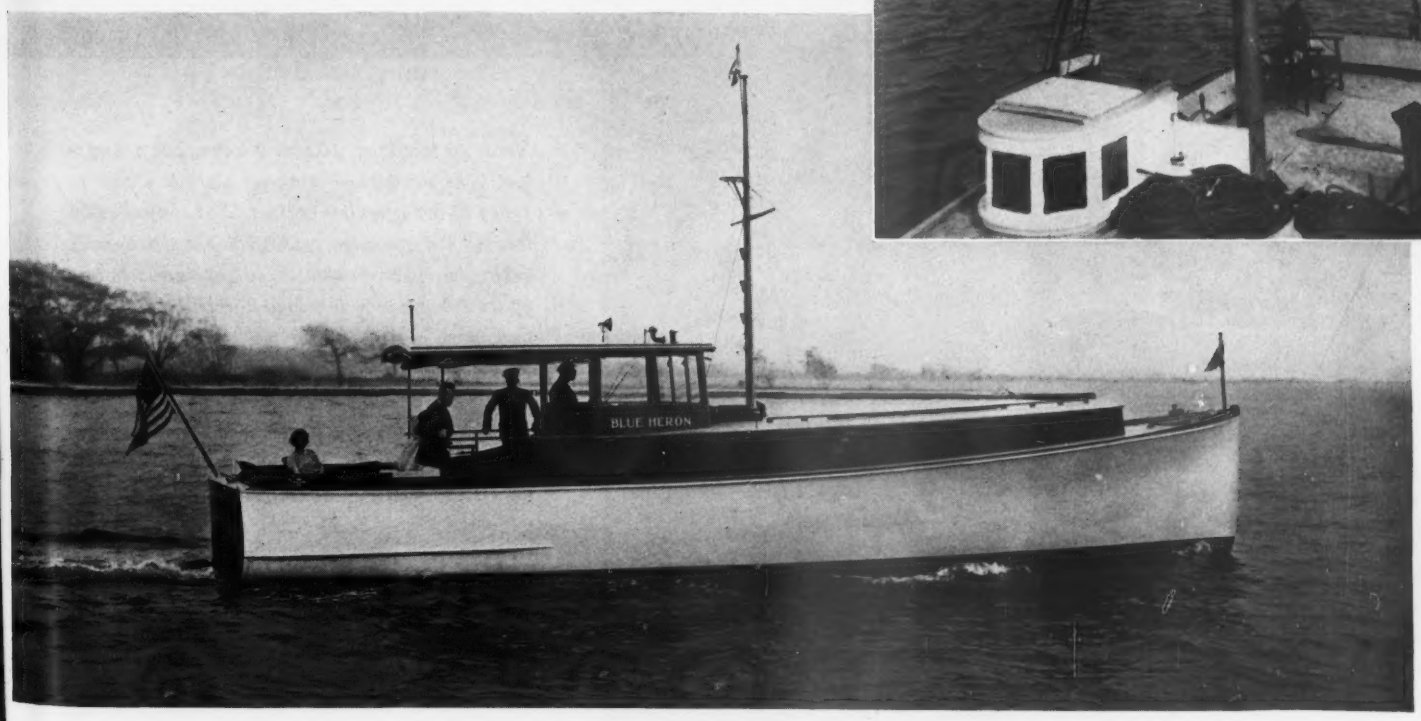
Trolling speeds vary according to the fish sought and to the locality. Perhaps the most strenuous requirement ever demanded of a fishing boat was that which the writer had to meet some years ago. The owner wanted a sustained trolling speed of not over three miles an hour and a top speed of forty miles an hour. It looked almost impossible at first, but a solution was arrived at by building a curiously shaped Vee-bottom boat about twenty-six feet long, somewhat like a dory, and installing in this boat a Packard Gold Cup motor having special carburetors, manifolds, camshafts and an extra large flywheel. The propeller shaft of this freak passed through the dory-type stern a few inches above the bottom, about half the propeller being behind the narrow transom. At speeds up to fourteen or fifteen miles an hour, the boat acted exactly as a dory, steered perfectly, and rode the seas like a life boat. When weather conditions were favorable, the throttle was opened up; the boat would plane, the propeller then acted as a surface propeller, the boat leveled out and easily made her forty-mile-an-hour speed. However, as a fishing boat, according to her owner, she was not an unqualified success as he declared that the big propeller seemed to scare away the fish. The type is one, however, of considerable possibility as it does promise exceptional seaworthiness at low speeds and exceptional speed when water conditions are favorable.

Most modern boats are built with wide sterns to accommodate one or two special fishing chairs. Several purveyors of sport paraphernalia now carry these special chairs in stock. They must be very sturdily made and are arranged to pivot on the central mounting. When the angler hooks a fish he places his feet against the stern or the coaming or on a circular foot rest and exerts his full strength against the pull of the fish. Particular care must be given to mounting the chairs to withstand the stresses involved. One enthusiast for whom chairs were built demanded that his particular chair be fitted with arms and back which could be instantly removed by his guide, giving him free play when battling with the monsters. Other fishermen demand that the arms and back be rigidly secured in place. The boatbuilder will have to consult his particular client to find out just how he fishes and what he wants.

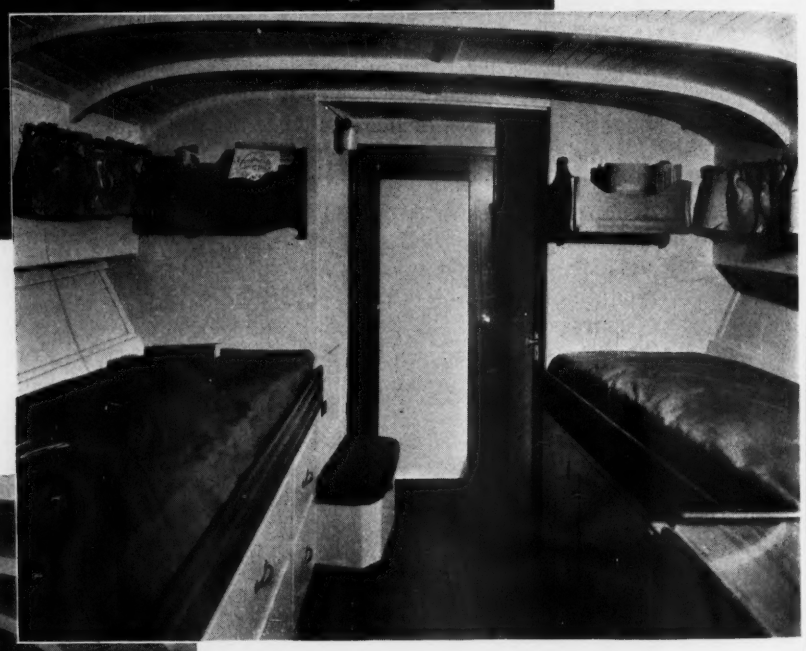
Bait wells in which to carry live bait should be fitted in every well equipped boat. The simplest way is to bulkhead off a portion of the hull, fitting the bulkheads carefully in

(*Continued on page 170*)





Some of the Block Island swordfishing boats are fitted with a steering wheel at the masthead. This gives better control when approaching a fish as the man aloft can follow his movements better than the helmsman in the pilot house. "Blue Heron" (below) is a 45-footer designed by Eldredge-McInnis and powered with a pair of 6-cylinder Chrysler engines. The after part of her cockpit is kept clear for the anglers



"Margaret"

A Special 40-Foot Elco Cruisette

M. Rosenfeld

She is 40 feet long, 10 feet 8 inches beam, and 2 feet 9 inches draft. The power plant is a pair of Type 525 Buda gasoline engines. She has a forecastle forward for one man. Next to this is the owner's cabin, shown above, with a fixed berth on each side. At the left is a view looking aft from the stateroom through a passageway to the after cockpit. The galley is on one side of this passageway and a toilet room on the other. The deckhouse is roomy and the after cockpit is arranged for the angler, with swivel chairs, bait boxes, etc. "Margaret" is owned by John P. Cook of New York and Palm Beach, Florida

"Goodbye to All That"

By

ALFRED F. LOOMIS

"The main saloon was what you might call a shambles"

IT SHOULD be understood from the outset that I had nothing to do with breaking Calvin Anthony Zinneas into or out of long-distance racing. No sir. When I first knew Caz, as we call him, he was a five-cent chisel manufacturer, and although I have the proselytizing instinct as strongly as any other yachtsman it occurred to me that while we have many long-distance racers we have mighty few five-cent chisel makers. And as at that time I subscribed thoroughly to the classic saying that what this country needs is a real good five-cent chiseler I did nothing to divert Caz from his inspired calling.

But it seems that Doug Smart, who wasn't sailing anybody's boat last spring, fell in with Caz when he was on the point of retiring from business, and persuaded him that there was nothing like racing to restore the edge to a retired manufacturer's zest for life. As Doug knew where he could buy a yacht for $5000 and sell her to Caz for $10,000, I wouldn't say that Doug's motives were absolutely pure. Be that as it may, it was through Doug's agency that Caz began his yachting.

Now you needn't think that Caz is anybody's fool. He was the first man to realize that the N.R.A. would turn us into a nation of chiselers, and for him to fill the country-wide demand for a cheap and reliable implement was an evidence of nothing short of genius. Likewise, he anticipated the Supreme Court's decision, which was more than the President did, and retired from business the day chiseling was declared unconstitutional. So, although Calvin Anthony Zinneas didn't know yachts when Doug took him in hand, he had established a record as a man of acumen and judgment.

Doug saw that in initiating Caz into the sport he would need a stooge to feed questions which Doug could answer with his customary assurance. There was no sense, Doug told me, in getting eloquent over Caz's first questions, which were on the following order: "What is the difference between a yacht and a schooner?" Or, "Does the compass always change its variation with a southerly wind?" So, over a few rounds of highballs at Caz's expense, Charley Peckosnips was brought into the equation. And Charley's opening gun was worth the price of any man's drink. It was:

"I suppose, Doug, Mr. Zinneas will want to put his new boat into the Sawpit Lightship Race next month. What sails do you think he will need for it?"

Doug has a long, blackish kind of a jaw which he stroked ruminatively while sucking in a lungful of air through his partly opened mouth. "Thanks, Charley, for bringing that up," he said, exhaling slowly. "Mr. Zinneas has given me *carte blanche* — "

"What we call in business a blank check," interrupted Caz, indicating that he wasn't taking Doug on with his eyes shut.

". . . And we want to fit the boat out in A Number One style," continued Doug. "Now, she's a cutter, which is going to save us a lot of expense. In the first place, we can't use one of those big balloon topmast staysails which the schooners have and which run into big money if they're made of silk. We save anything from five hundred to a thousand right there. Then there's no use of buying a parachute spinnaker because they're practically outlawed. As for a mizzen staysail such as you have to have for a ketch, why, there's no place for it on a cutter, so we can cross that off, too. So about all we need" — here Doug took another long breath — "is a jib and a storm jib and a staysail, and Numbers 1, 2, and 3 jib topsails, and a guinea, and a high-cut ballooner, and a spinnaker, and a second spinnaker, and, of course, a mainsail and a storm trysail."

"Wait a minute," said the stooge, speaking quickly; "you might want a loose-footed light weather mainsail in case the race turns into a drifting match." Again Charley provided the proper springboard for the eloquence of Doug, who exclaimed, "Nothing of the kind, old boy! Mr. Zinneas isn't taking up yachting merely to relieve unemployment among the sailmakers. I regard a loose-footed mainsail as an unnecessary expense, especially as that also will probably be disbarred in the Sawpit race. Don't you agree with me, Mr. Zinneas?"

"I do," was the reply. "But I wish you boys would call me Caz, or Skipper, or something informal like that. Will you?"

Charley nodded acquiescence while Doug said, "Sure will. Now, Skipper, shall I go ahead and order the new sails or would you prefer to handle that part of it yourself?"

Before Caz could reply Charley piped up with, "You certainly ought to add a Greta Garbo to that list, Doug, and if I were Caz I'd insist on your doing the ordering. You know exactly what he wants, and it's expensive having sails recut because they weren't correctly specified in the first place."

So that's an indication of how thoroughly the *Calliope* was outfitted. Although I was sitting within earshot, I wasn't brought into the confab until Caz called over and asked if I were satisfied with his cutter's name. I joined them then and expressed an opinion on the conservative side. It was bad luck to change a boat's name, even if it was *Calliope*, I said, and anyway it just added to the expense. My remark made such a hit with the owner that he told me to consider myself a member of the crew when the big race came off.

II

Now Doug has asked me to make it clear that nobody gypped Caz in preparing the *Calliope* for the Sawpit Lightship Race. It was the Skipper's own idea, for instance, that the entire hull be planed down a quarter of an inch to lighten her and give her a first rate racing bottom. Doug said it would be much better to save weight by throwing away her cast iron stove and putting in an aluminum one, and then, when Caz insisted on having the hull planed down, Doug got obstinate, too, and insisted on the aluminum stove. Neither was the owner bulldozed, as some people say, into having a three-inch spinnaker pole turned out of an eight-inch piece of airplane spruce. Charley said we simply had to have a decent pole right away and when Caz learned that there was nothing available in the yacht yard but the eight-inch timber he himself gave the order for using it. If he had wanted to wait a couple of days he could have saved $50 right there. Anyway, early in the game Caz dismissed the whole matter of expense by saying that if anybody mixes cost accounting with pleasure all the pleasure is lost in the mixing.

I have thought occasionally that Caz might have had more fun in the Sawpit if he had been permitted to include in the crew a few of his own cronies. But the three of us whom he had established as a nucleus put our feet down hard on the idea of having any landlubbers on board. Ocean racing, we told him, was a serious business, and while the Sawpit was only partly an ocean race it took a lot of skill and experience to win it.

So we invited Bud Elwell who is an excellent helmsman, and Ed Farlowe because he's a wizard with light sails, and Pete Smith for a topmast man, and Joe Bridwell for navigator. Bud got himself in kind of wrong by saying the day before the race that it would be a fine hunch to leave the owner ashore and ship a good man in his place. That sort of peeved Caz at first, but after he had thought it over he volunteered to stay ashore on the very sound principle that it is the ship rather than the individual that counts in racing. His generous and, I may say, traditional attitude made such an instantaneous hit with all of us that we insisted on keeping him aboard as a mascot, while Bud promised to stand double watches if necessary.

There was just one other pre-race incident which might have made for bad feeling. Caz was lavish in providing the *Calliope* with wet stores and, in addition to gin, whiskey, brandy, etc., he brought aboard a case of Madeira which he undertook to stow out of the way in his own bunk (the one on the starboard side under the leak in the fo'c'sle). Doug caught him at it and asked him how come. Caz said it was a light wine that he liked to drink after meals and that he didn't want to be stingy with it but that he had noticed none of the boys liked soft stuff and so —

Doug interrupted him with, "You've got us absolutely wrong, Caz, if you think any of us drink during the progress of a race. We don't. So why not save room by leaving that bellywash ashore?"

"Well," said Caz, on the defensive, "a little wine aids digestion, and I thought — "

"But think of the bad example," interrupted Doug again. "If the owner takes to booze then the crew will want to, and the first thing you know this race will be turned into a drunken orgy. We've worked so hard to make the old *Calliope* a winner that I should think you'd be willing to deprive yourself for the sake of the ship. How about it?"

"Well," said Caz, weakening, "I want to do anything that's proper. But how about all those cases of hard liquor that you've got down in the bilge? Don't you want to leave those ashore too?"

Doug stroked his chin the way he has and said it was a point worth mentioning, but that immediately after the finish of a race the boys like to toast the owner; and then there'd be guests coming aboard, etc., etc., and on the whole Doug thought that the hard liquor in the bilge improved the trim of the ship and it ought to stay there. They reached an agreement when Doug offered to put one case of gin in his locker ashore and stow the Madeira in its place.

III

So now we come to the start of the race. Caz had learned to row during the summer and, because the rules didn't require us to carry or tow a dinghy, he made it his last-minute job to take the boat to the clubhouse float and come back in the launch. In the excitement of getting across the line to a leeward start we clean forgot that Caz hadn't rejoined us. But about five minutes after the gun we heard a hail and there he was coming alongside in the club launch.

"Hey," he said, "are you going to race without me?"

"Doesn't make much diff," said Doug, concentrating on the trim of the spinnaker. "Glad to have you come if you don't get in the way."

"Wait a minute," shouted Charley Peckosnips. "You may disqualify us coming aboard after the starting gun. Hike along over to the committee and get a ruling, will you?"

Being so new to the game, Caz didn't argue. But there was a kind of dejected look on his face as he asked the launch man to run him over to the committee boat. I suppose he got a satisfactory ruling because a few hours later, when the watch changed and I went below, I saw him chocked off in a corner of the saloon playing solitaire. We hadn't happened to notice him when he returned aboard, but there he was, and nobody protested us for having him.

I had hardly got settled in my bunk with a magazine when there was a call for all hands and we rushed up to take in the spinnaker. The wind had shifted and was coming in from the east, cold and foggy. Somebody — I think it was Charley Peckosnips — let go the halliard before the pole had been swung forward, and by the time we got everything straightened out the sail was a collection of rags.

Doug raised hell at first, but when Caz, who had gone on deck to see what all the shouting was for, asked him if it was a serious accident he calmed down and apologized for getting excited. "As a matter of fact, Caz," he explained, "it doesn't make a particle of difference. We've got another spinnaker that we can use on the way home if this easterly holds. What's worrying me at present is the fog."

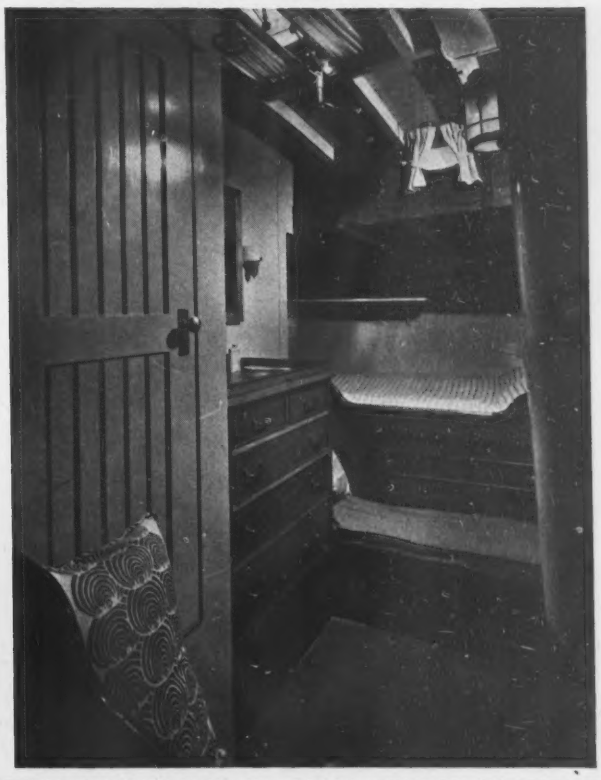
"Oh, is fog dangerous?" asked Caz. "I thought somebody had invented something for dispelling fog."

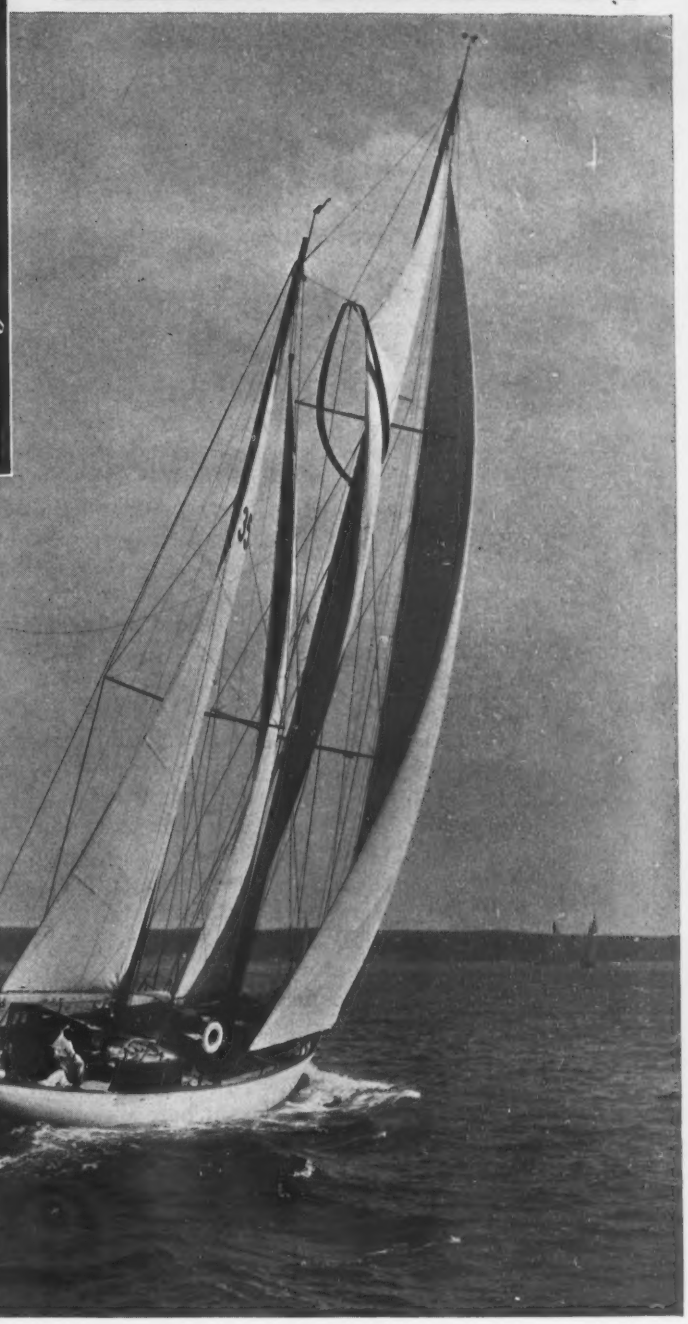
"Well, if they had we'd have the invention right on board," said Doug, shortly. "Now, Mr. Navigator, what do you propose to do about giving these rocks ahead of us a berth? We're up here under the land in a good position to take advantage of the wind shift, and it seems too bad to

(*Continued on page 168*)

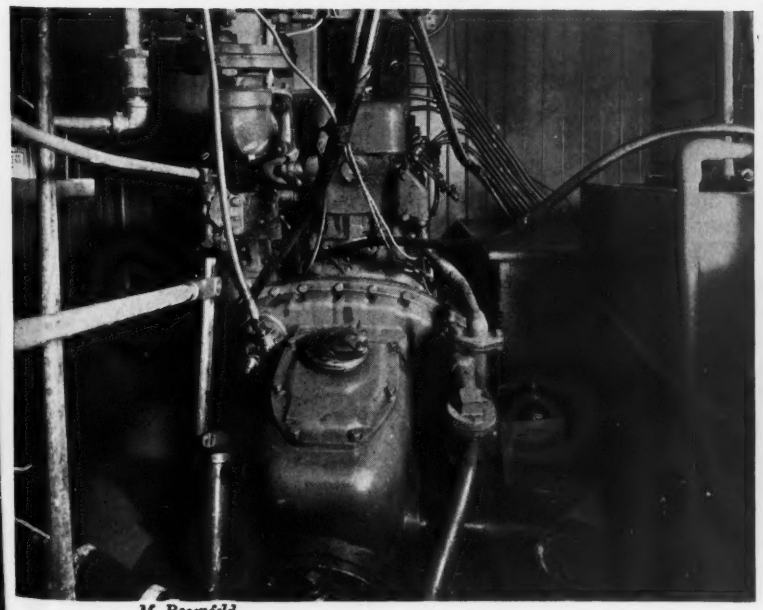
"Winsome Too"

She was designed for Harkness Edwards of East Hampton, L. I., by John G. Alden, and built by F. F. Pendleton. The dimensions are: Length over all, 64 feet 6 inches; water line, 47 feet, 4 inches; beam, 14 feet; draft, 8 feet 1 inch. "Winsome Too" is rigged as a main staysail ketch with a "wishbone" on the mainsail

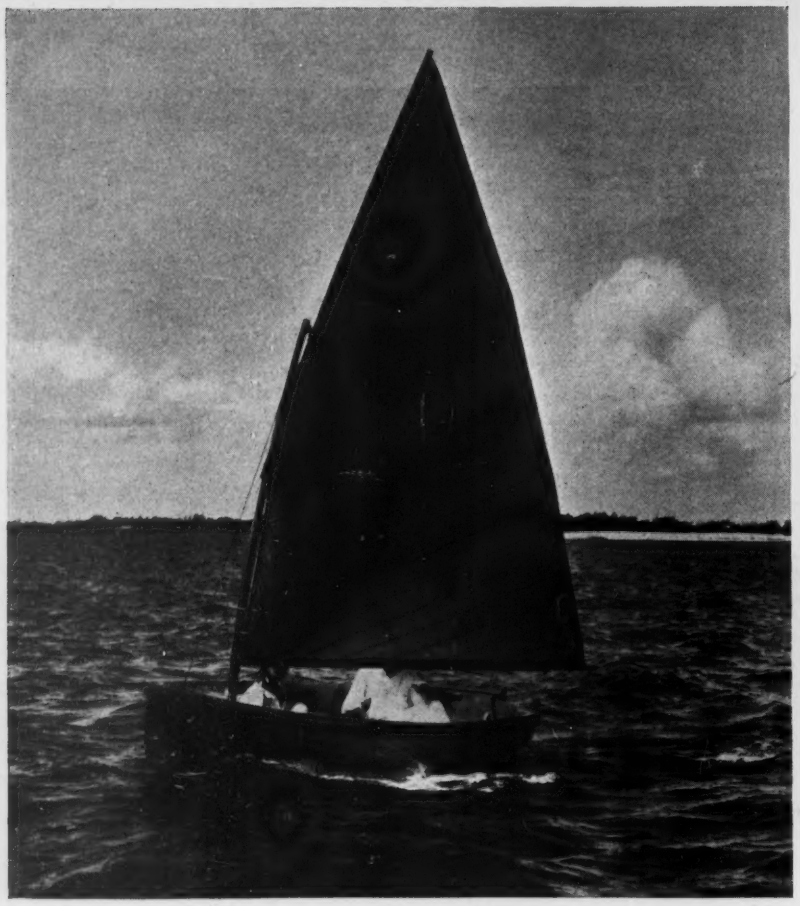




Above is the main cabin and in the upper corner is a glimpse of a stateroom. Below is the engine room with the 4-cylinder Buda Diesel which is her auxiliary power. The view at the right shows the yacht's rig and the interesting deck arrangement



M. Rosenfeld



A Class D dinghy, primarily a yacht tender, but fast and handy

M. Rosenfeld

The Class B One-Design boats are growing in popularity

Frostbiting Today

The Development of the Popular Racing Dinghy

By SAMUEL WETHERILL

LAUNCHED some four years ago on a blustery New Year's Day morning, Frostbite dinghy racing has survived an eventful shakedown cruise and emerged trim, shipshape and ready for fair winds or foul during the 1935–1936 season. Pessimists predicted that the fad would soon die out and dinghies disappear as quickly as they sprang into life during the hectic childhood period of the sport. But dinghy racing has outgrown its "growing pains" and is becoming more strongly established as both a winter and summer sport.

In addition to the International team races held off Larchmont last September, there have been intercollegiate team races at Greenwich. Cornell and Princeton both have fleets of dinks, and students of Boston Tech are negotiating for a dozen boats. No fewer than forty-one dinks turned up at the November Regatta held at Essex, on the picturesque Connecticut River, and sizable fleets race every Sunday throughout the winter at Larchmont, Manhasset, Greenwich, Bristol, and on Great South Bay. And in February a dozen or more Yankee dinghy owners will trek southward to try conclusions with the crop of southern dinghies on Lake Worth, in Sunny Florida.

Numerous classes have been evolved since the inception of dinghy racing in the original Class A boats. Class B, of the same size but with few restrictions on hull or rig, is definitely a development class, where sprout the fearsome and complicated wishbone booms and rotating masts without shrouds, and sails which measure 72 square feet but which actually contain over 80 square feet of canvas. It was in Class B boats that the international team contests were held, with the British boats springing tremendously tall rigs which failed to overcome the shorter American sail plans with wishbone booms.

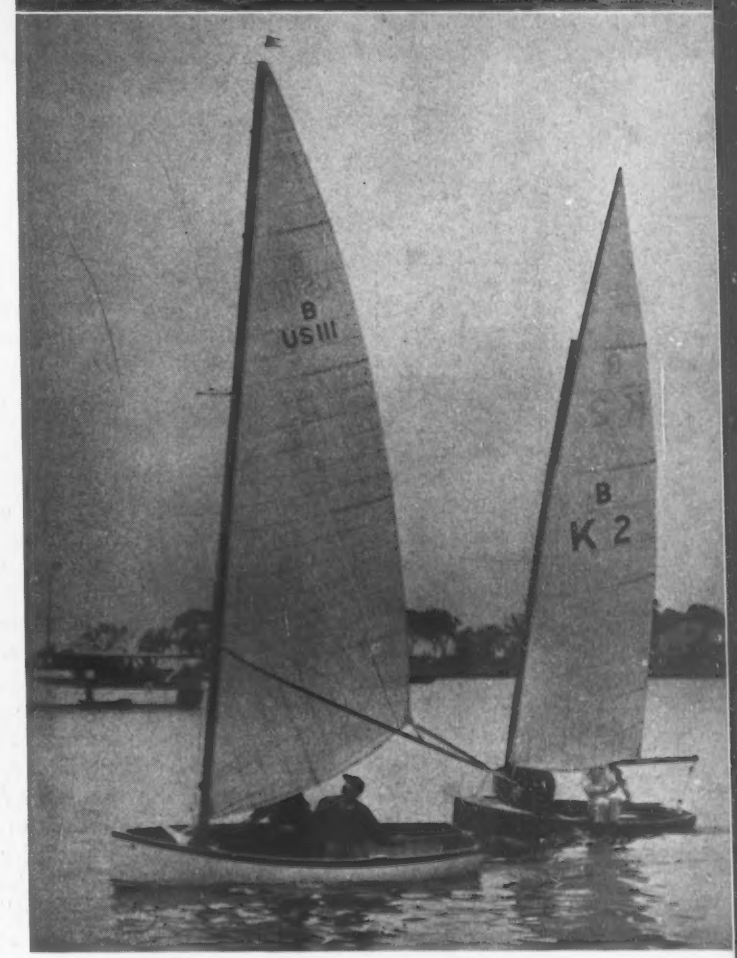
Last winter the Class B One-Designs came into being, and are now on the increase at Larchmont, Greenwich and Manhasset. Then there appeared a Class D boat, ten feet long—primarily a yacht tender, but a decidedly handy, fast little craft which has been raced off and on at Bristol, Manhasset and Larchmont.

The latest class to be added to the growing roster is Class X, composed of former Class A boats designed by John Alden and now equipped with a jib-headed, loose-footed mainsail. These craft, racing in Class A with the original lug rig, had things pretty much their own way, proving fast, dry and able, and excellently fitted for tender service on all but the smaller yachts. As Class X boats, with "fish pole" masts and jib-headed sails, they have shown such an increase in speed that they are more than a match for any other dink except the newer Class B craft with their wishbones and larger sail area. Removal of the skeg has greatly increased their handiness and speed in tacking, yet they will still tow well in average conditions. Many Class A Alden dinghy owners have already moved into Class X, half a dozen new boats have been added, and as their speed, dryness, and all 'round comfort is being demonstrated every week, prospects for a healthy growth of the class are excellent.

The accompanying photograph of the British dinghy *Runt* and the American dink *Confusion* is sure to prove of interest to real dinghy addicts. *Runt* is using the tall rig which she carried in the Internationals. *Confusion* is carrying a new, tall fish-pole mast with wishbone boom. In some informal tryouts, *Runt* beat *Confusion* in light going and smooth

Harold A. Preston

The dinghy sailors have been experimenting with wishbone rigs and gadgets of all sorts



At top, a Class X boat. These are Class A hulls built to a certain design and specifications with liberal requirements as to rig. Bottom, Frank Campbell's "Confusion," Class B, leading "Runt," sailed by Colin Ratsey, in the international dinghy races last fall

water, but Frank Campbell, owner of *Confusion*, firmly believes that with proper tuning up, the tables would be turned. *Confusion* had a number of tryouts with her team mate, *Consternation*, in which the tall rig demonstrated its superiority without question in winds up to six knots. Over that strength, there was little difference until it began to breeze on, when the tall rig was not quite so good.

One would naturally think that this tall rig would prove its superiority, if any, on windward work, but would fall down with slacked sheets. Surprisingly enough, there was a decided increase in speed not only in going to windward but in running dead before it and, in smaller measure, in reaching. Will the experts please explain?

For the benefit of those who are just cutting their eye teeth in Frostbiting, we are including here a synopsis of the rules in the various classes which are active at the present time.

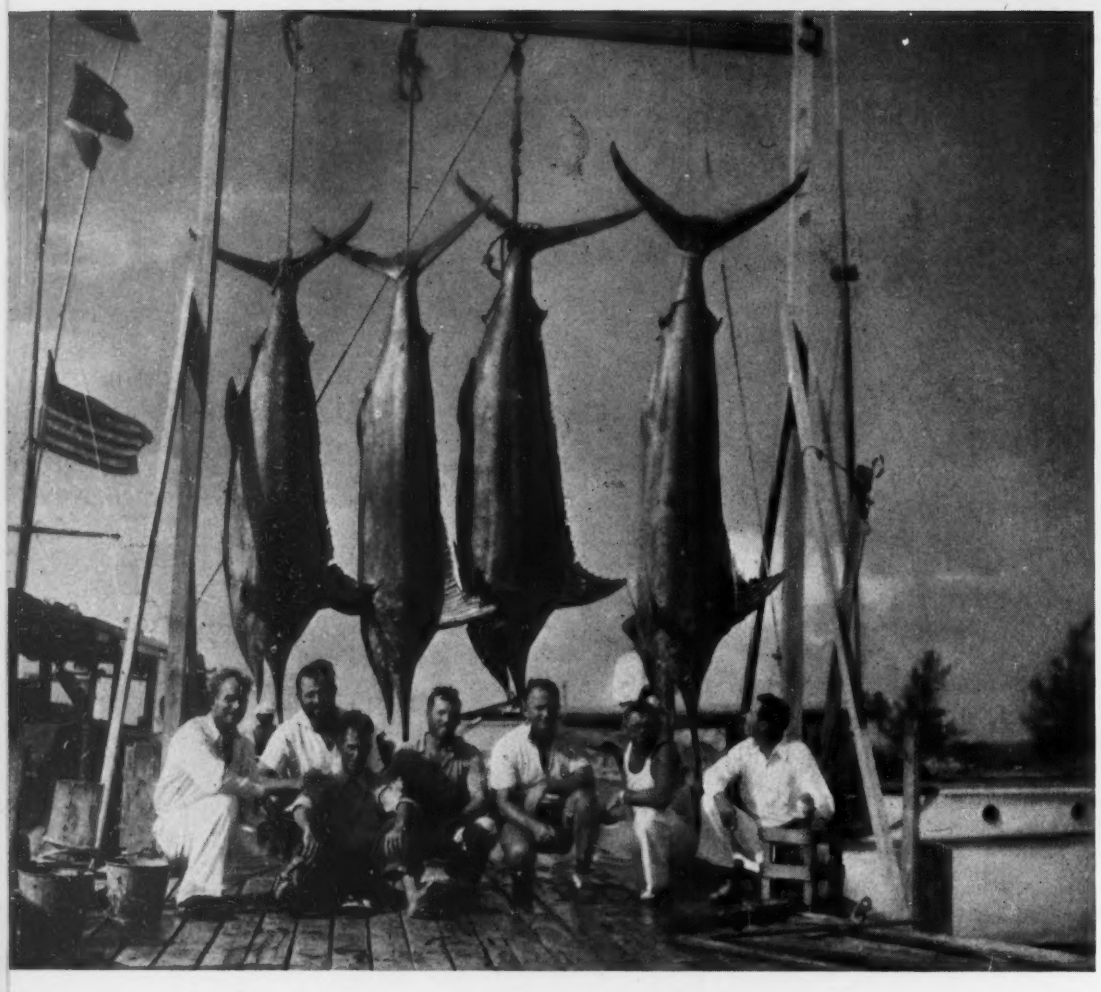
Class A. The original Frostbite class. Meant for all round tender use, sailing, towing, rowing. Length not over 11′ 6″, with minimum and maximum beam restrictions. Lug rig, 4-sided sail of 72 sq. ft. area. Must be equipped with fenders and rowing thwarts, and skegs. Weight, not less than 150 lbs., minus centerboard, fenders, etc. Spars must be of such a length as to stow inside the dinghy.

Class B. An outgrowth of Class A, with most restrictions removed. No fender required. Weight, 150 lbs. including centerboard. Any rig. No beam restrictions. Sail area by measurement rule, 72 sq. ft. (actual area over 80 sq. ft.).

Class B One-Design. Consists of dinghies built to specified design of Nicholas Potter. Fish-pole masts, loose-footed, jib-headed sail of 72 sq. ft. area. No fenders. No deviation from Potter construction plans allowed.

Class D. Ten-footers, with either lug or jib-headed rig of 66 sq. ft. area. Fenders. Beam and depth restrictions, also weight limitations. Boats designed primarily as small yacht tenders, to tow, row or sail.

Class X. Consists of dinghies built to Design 561 of John G. Alden, Specifications No. 3. Fish-pole mast, loose-footed sail of 72 sq. ft. area. Not more than two new sails per year allowed. Fenders and rowing thwarts required. Some leeway allowed in design of centerboards and rudders, position of mast, and position of centerboard. Existing Alden "A" boats accepted in Class X with fish-pole rig installed.



Three Atlantic Records Broken and Many Giants of the Sea Caught During Season of 1935

Four giant blue marlin taken at Bimini last summer, and those who caught them. Left to right: Captain Fred Lester, Ernest Hemingway and his mate, whose two fish weighed 398 and 332 pounds; Captain Archer Cass, Michael Lerner, and Tom Gifford, with a 478-pound fish, and Julio Sanchez, with his 382-pounder

The Greatest Fishing Year—A Review

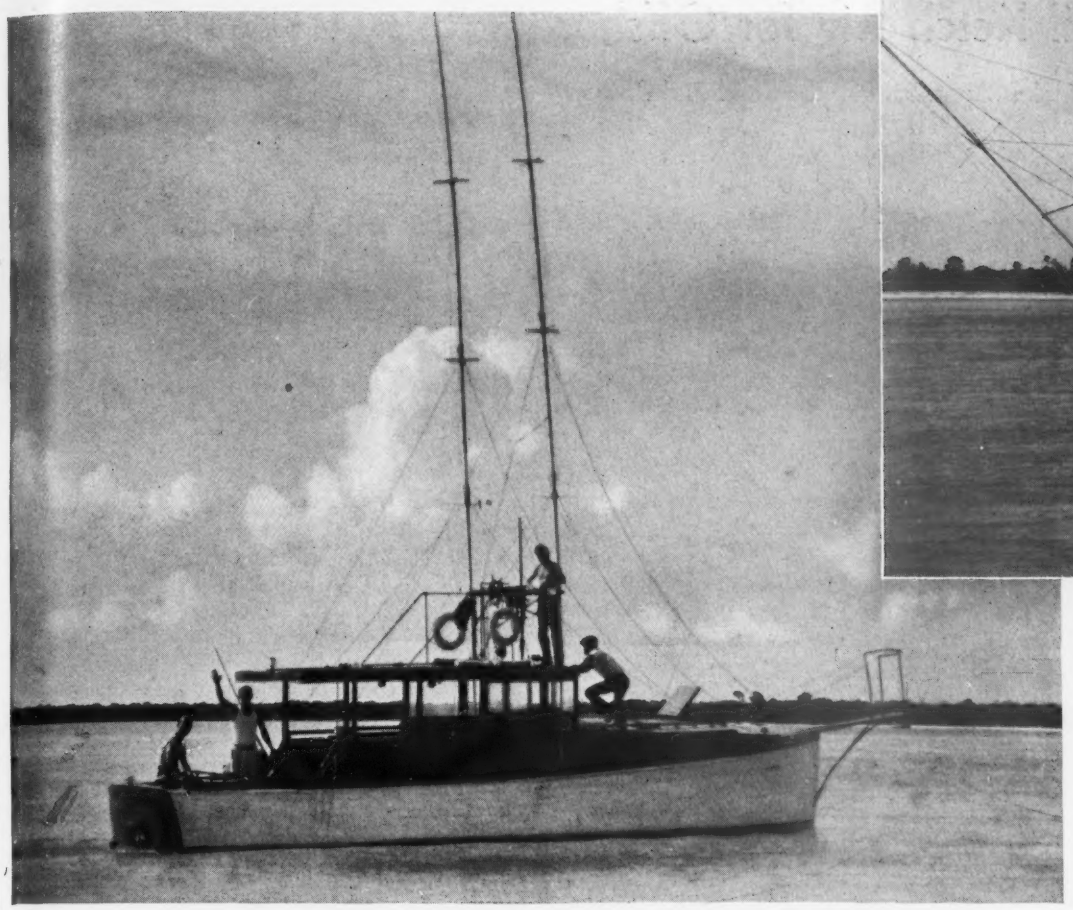
By S. KIP FARRINGTON, JR.

LL along the eastern seaboard, from Bimini and Cat Cay to far-away Nova Scotia, the year just past found the big game fishermen enjoying their finest season since the sport began. Only two places of note, namely the north coast of Cuba — probably because Ernest Hemingway did not fish off Havana this season — and the famous big tuna grounds off New York City, failed to keep pace with their reputation of the two preceding years. However, the new wahoo grounds off Bermuda, and the remarkable success Paul Townsend enjoyed fishing with Captain Hatch for white marlin and Mako sharks off Ocean City, Maryland, a newly discovered spot, helped in a small measure to make up for the hard luck experienced by anglers off Morro Castle and Ambrose Lightship.

The sailfishing at Palm Beach and Miami was as good as ever and a new American blue marlin record of 247 pounds was set at the latter place by Russell Stoddard, Jr., fishing with Captain George M. Stevens. Several large Allison tuna were also caught, and the enthusiasts at Palm Beach saw the first blue marlin taken there, a 146-pounder caught by J. P. Cook. Needless to say, tarpon fishing on the west coast of Florida came up to its usual standard of excellence.

The winter at Cat Cay and Bimini began slowly for large fish with a 310-pound blue marlin caught by Captain Elmo Capo, L. R. Wasey's fishing guide, for Major Butler, aide to the Duke and Duchess of Kent who were visiting there. This fish stood high until May, when C. N. Cook, with Captain Eric Stewart, leading native guide of the Bahamas, bettered it by two pounds. Then came Bimini's greatest fishing tragedy, due, of course, to our old enemy, the shark. A very able fisherman, Henry Strater, president of the Maine Tuna Club, was the unfortunate angler. Trolling with Ernest Hemingway, on the latter's *Pillar*, he hooked a gigantic blue marlin. After fighting him very hard, he had almost brought him to gaff in 50 minutes, when he threw a knee out of joint. At almost the same instant his beautiful marlin was ganged by three or four big sharks. When the fish was finally gaffed one-third of it, from the tail forward, had been eaten. The fish weighed 500 pounds and measured 12 feet 6 inches in length. He must have been an 800-pounder whole, if ever there was one. In June, Tom Shevlin of New York, fishing with Captain Bill Fagan, partially atoned for the disaster by breaking the Atlantic Coast record with a 636-pound beauty. The day before he lost a large one to the same scavengers, bringing in a head that alone weighed 186 pounds. From May 15th to August 15th Hemingway took 14 marlin of 200 to 540 pounds. Tommy Gifford took six, weighing from 180 to 478 pounds, for Michael Lerner, and two more for Sharp Ezell. Captain Cass got five of weights varying from 350 to 486 pounds for the Baldridge brothers. Julio Sanchez, crack Cuban fisherman, took three, 200- to 450-pounders. Mrs. Lerner got a 326-pounder with Captain Lansdell Anderson, Captain Hatch took a 200-pounder himself, and Captain O. M. Schubert brought up the rear with one of 180 pounds. In all, 36 blue marlin were taken in these three months. Perhaps I should add that Ernest Hemingway was the only angler to fish the east side of the Gulf Stream, off Bimini, the entire time.

Hemingway broke another record for the Atlantic with a 786-pound Mako shark and another of 636 pounds was taken by A. O. R. Baldridge.



Left. The "Florida Cracker" with outriggers before lowering and, above, after they are in position for trolling

Tom Gifford and his crew "boating" a 446-pound marlin caught by Michael Lerner

Hemingway also caught the first unmutilated tuna at this famous "hot spot," two fish weighing 310 and 381 pounds. They were followed by five more, 330 to 542 pounds, caught by Phil Holden, Louis Ripley and the writer. The first Allison, or long-finned tuna, were also caught, three of these beautiful specimens being brought in to the dock. The white marlin, sailfish and wahoo were as numerous as ever and the world's king-fish record was broken with a fish weighing 73½ pounds which was caught by Lerner B. Harrison, fishing with Captain Fagan in his *Florida Cracker*.

The largest horse mackerel caught off the Jersey Coast this year weighed 191 pounds. But there was grand fishing all summer for the smaller school tuna. A few marlin and some dolphin were also taken. In June, Francis Low caught a gigantic white shark weighing 998 pounds and a smaller one of some 200-odd last Fall. Francis Geer, another stick-at-it big game angler, took three Mako, 65 to 175 pounds, in one day. Some fishing! Bluefish were never more plentiful, and a record channel bass was taken from the beach near Tuckerton, casting in the surf.

Many white marlin and small tuna were taken by the boats fishing out of Freeport, Long Island, but the real fireworks in United States waters took place at the famous grounds off Montauk Point, the tip end of Long Island. Here 15 broadbill swordfish, seven more than in any previous season, were caught on rod and reel and many others were hooked and lost. Captain Howard Lance alone caught six of these, twice as many as any other guide ever took in a summer's fishing. This record for broadbill fishing was beyond any fisherman's wildest dream. Let us hope it may be equaled next summer. White marlin were so numerous that for several days they were easier to catch than the small tuna

(Continued on page 160)

The Staysail Ketch Rig for Offshore Work

Experience Makes Appraisal of Good and Bad Points Possible

M. Rosenfeld

"Vamarie" and her much discussed main trysail rig

WE HAVE been asked frequently by the readers of YACHTING for an authoritative opinion on the staysail ketch or main trysail rig which the *Vamarie* has brought into prominence since she came out with it, in 1933, for deep sea cruising. Following *Vamarie*, a number of small and medium sized cruising yachts have appeared with the rig and many yachtsmen have felt that it offered so many advantages that it would soon be the accepted rig on cruising yachts for offshore work.

The rig was first introduced to yachtsmen by Frederic Fenger in the August, 1926, issue of YACHTING. Later, Jasper Morgan developed the wishbone gaff, permanently attached to the mast aloft, to spread the sail when off the wind. This spar has since been perfected in the *Vamarie's* rig. It has been tried on several large schooners abroad, principally by C. E. Nicholson, but without the gaff arrangement.

Because of the success of *Vamarie* in all the races in which she has sailed, yachtsmen have jumped to the conclusion that her speed has been due to her rig, and have, perhaps, underestimated the speed of her hull as a factor in her excellent performances. Being new, the rig has, like most innovations, developed faults and one should bear these in mind, or find out what they are before accepting the rig as the *sine qua non* for offshore work.

As to its advantages, it does give more sail area between the masts of a ketch than is possible with a jib-headed main, and in a breeze it is undoubtedly closer-winded than the gaff-headed ketch rig. It also divides the sail area between the masts, which, theoretically, should make for handiness but, in practice, does not seem to do so.

Sherman Hoyt, whose opinion always carries weight and who has cruised and raced in the *Vamarie*, having sailed in her to Norway in the race of last June, is quite outspoken about the unfavorable points as they developed in offshore work. In his day-by-day log of the Transatlantic voyage, he says some hard things about the main trysail, which he properly calls the mainsail, as it is the largest sail on the yacht. On account of its driving force, it was frequently carried too long and, on several occasions, when lowering it in a breeze, the sail thrashed about so that several seams in the mainsail let go. With a spar to steady the sail, this would not have been so likely to happen. Also, its thrashing once tore the mizzen staysail set below it. Again, when it blew too hard for the big main trysail, a smaller one was set, and once the log records that they "Got small mainsail set about 1:00 a.m., after a three-quarter-hour fight under trying conditions of darkness, rolling and fouling of gear . . . Later, replaced small with regular mainsail, now repaired at cost of most of our sail needles, but had to lower it before midnight owing to increase of wind to about 40."

Another drawback of the rig in offshore conditions seems to be the fact that there is no spar on which to furl the mainsail. When it is lowered it must be bundled up on deck, at the foot of the mast, where it is in the way and is constantly wet if the decks are running water, or else stowed below, which, in a yacht of *Vamarie's* size, must be quite a job to accomplish as it is the largest sail on the ship and of heavy canvas. There is no way to shorten it down except by setting a smaller sail in its place.

We quote below from *The Yachting Monthly* for August, 1935, Mr. Hoyt's summing up of his reactions to the rig, with which he concludes his account of the Transatlantic Race in that magazine.

"For the hull of the *Vamarie*, its excellent design, construction, seaworthiness and potential speed I have the greatest admiration. Quite detailed plans of it, her arrange-

(*Continued on page 162*)

The resort and anchorage at Santa Cruz, in the Channel Islands

Salute to Anacapa

A Week-End Cruise to the Channel Islands of Southern California

By WESTON FARMER

Photos by J. Walter Collinge

EVERY once in a while someone does it. Without knowing just how it happened, a boat is designed for a certain set of conditions that fills the order to a "T." Naval architects know this; they point with pride to their pet creations, fully realizing that, in certain boats, they have hit the nail on the head, whereas in others a jinx seems forever at work. So when a seagoing photographer, who does not claim to be a naval architect, designs a "natural" at the first try, and builds her, to boot, she is a craft worth remark. Such is *Stormy Petrel*, 26-foot motor sailer, designed, built and owned by J. Walter Collinge, of Santa Barbara, Cal.

Back East I had heard of *Stormy*, principally because the method employed in her designing was unique. Collinge took about sixty plans for boats of her type, averaged up the lines, took an average of the averages, and lo! there was *Stormy*. Steering a straight course through the seas of well-meant advice, he did what the savants said shouldn't be done and, five years before the motor sailer put in her appearance in tabloid form in Eastern waters, Collinge launched his little ship and invited me to try her out on a cruise. But five years passed before that was brought about after a feverish exchange of telegrams between Los Angeles and Santa Barbara that led up to our taking *Stormy* out into the Pacific heave for a look at the Channel Islands — Santa Cruz, Santa Rosa, San Miguel, San Nicolas, and Anacapa — the jumping off place for steamers bound for the Orient. There one may see the impregnable cliffs, the rife sea life, the rounded hills that form the background of all the photographs of the South Sea Isles.

So Hollywood was left behind on Friday, October 25th, 1935, and I sped up the coast to our meeting place. The ship was ready, and so were we.

In *Stormy's* roomy, comfortable little cabin, we pulled out charts after snugging things down for the night, and the islands were plotted into our scheme of things. A westerly usually prevails on the Pacific at that time of year, blowing fresh in the afternoon, and dying down at night. It would be best, since the islands lie to the south of Santa Barbara, to head for the western end in the morning, take the wind over the quarter, run outside of Santa Cruz during the day, and fetch up in Albert Anchorage for the first night. Beyond that we laid no plans. The ship was fully found, and grub and water were aboard.

Santa Barbara is the oldest seaport in California. Here sea and sun and wind are the same in October as in January, the same in January as in June. Weather makes up slowly

In the Channel Islands one sees impregnable cliffs and rounded hills

and gives ample warning. These waters should be a cruising paradise, but West Coast yachtsmen, facing the open Pacific, must put up with long runs and must have real ships under them. Santa Barbara is west, not north of Los Angeles, and south from the harbor some twenty-five miles lies Santa Cruz; southwest lies Santa Rosa; still further west lies San Miguel. East of Santa Cruz is Anacapa, the roughest, highest, queerest, most forbidding hunk of dry ground I've seen in many a year. Fifty miles south and a little west lies San Nicolas, eight miles long, sandy, barren save for a few scrubs of oak. The waters between the mainland and the islands are known as the Santa Barbara Channel.

When Santa Barbara was a cub town, with but a few missions, much trading was done on the beach. Cattle in hordes were driven to the sea edge, there slaughtered, and skinned. The hides were dried, salted, and stowed in the holds of vessels lying in the open roadstead. The only shelter available to ships in this trade were the islands, particularly Santa Cruz, the largest and most interesting of the group. China junks, laden with tea and silks, put in to China Harbor, on Santa Cruz, and there conducted their trading. Whalers used Forney's Cove and Albert Anchorage and Smuggler's Cove as headquarters. The domestic sheep and fowl and pigs they set ashore to multiply in their yearly absence have done so to this day and are found in a wild state. The state of the islands is the same today as then; civilization is too puny to affect them.

When I awoke next morning the engine was running, there was the rattle of sail slides on tracks; the odor of coffee and bacon filled the cabin. We were at sea, with the skipper running all departments at once as *Stormy* throbbed along over a gentle swell, the dawning sun streaming down the hatch to my bunk.

Our course was a little west of south. Santa Rosa and Miguel were invisible, but Santa Cruz stretched her miles of towering mountains through the blue morning haze. Forney's Cove lies behind the western end of the island. The current here has an easterly set of three or four miles. Allowing for it, we figured on three and one half hours before fetching Frazer Point, the headland behind which lies the Cove. *Stormy*, powered with a Gray 4–30, slogs along like a power cruiser at seven or eight knots.

As the sandy cliffs of California faded into a mirage, the long Pacific swell increased before a freshening breeze. *Stormy* is under-rigged as a sail boat. But she was designed for specific conditions; her motor is the main thing in getting places and, when the right slant comes along, as it did later in the day, the sails put a couple of extra knots on her time. We logged nine and one-eighth knots for three hours on end later in the day with a moderate wind over the quarter. If the motor should quit, the sails will produce three to four knots. *Stormy* is ideal for the conditions in her home waters. She'll go places quickly, she will sleep three comfortably and she is stout. Her rig is simple — pole-masted Bermuda sloop, without spreaders — but stout. Sail can be made or taken in in a couple of minutes under any conditions.

It was noon when we pulled abreast of West Point. We could see the surf crashing against the stark, steep headlands of Santa Cruz and could hear the sea birds screaming and the seals coughing. Rounding the bight formed by the seal rookery, we "snapped" both sea lions and seals before sounding in over the sandy floor of the bay to an anchorage.

Such majestic desolation deserved a landing party. The folds of Santa Cruz's hills reach stark into the heavens a thousand feet and more. There are no trees, but the ground is covered inches deep with a dry, vine-like moss that sustains sheep life adequately. Santa Cruz is owned by a California family which engages in isolated ranching here, free from normal enemies save poachers. No sheep were in evidence as they pasture in the inland valleys at this season. Eagles flew from cliff crags with shrill screeches. Pelicans, cormorants and seagulls by the millions, swam, dove and flew seawards. A blowhole — a hole in a shelf of rock at sea level — sent geysers high into the air out of a seemingly calm sea.

Once again at sea, standing off a mile or more to fetch up at Posa Point, I sighted what appeared to be a ghostly lighthouse off the eastern end of Santa Rosa, some eight or ten miles away. As I watched, the apparition grew larger. Suddenly I realized that here was the rarest of sights nowadays on any ocean, something one lives a lifetime to see — an eighteenth century square-rigger! All plans for San Lucas

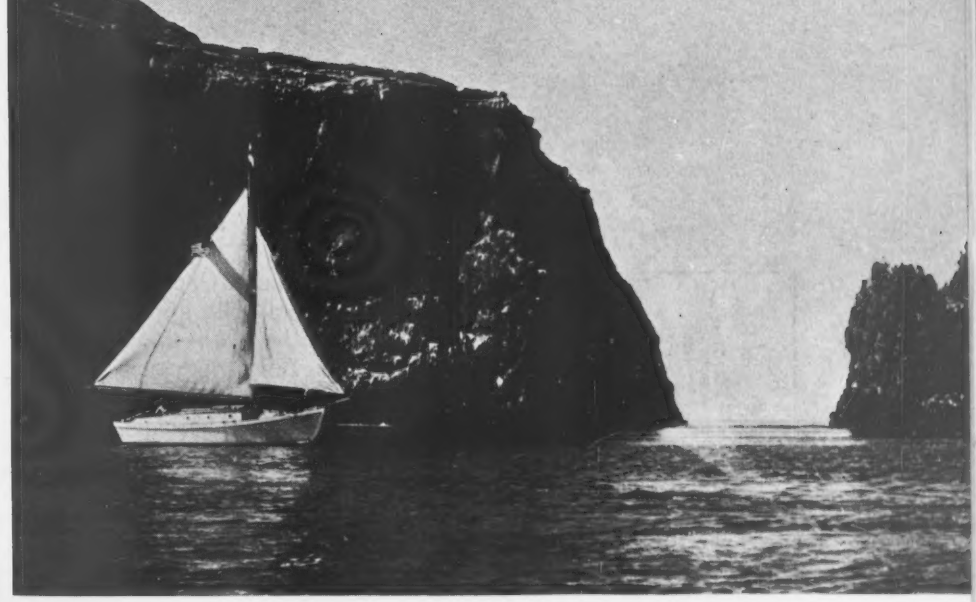
(*Continued on page 166*)

The blow hole at the west end of Santa Cruz sent geysers high into the air. Below. "Stormy" beneath the forbidding headland on which Anacapa Light is perched

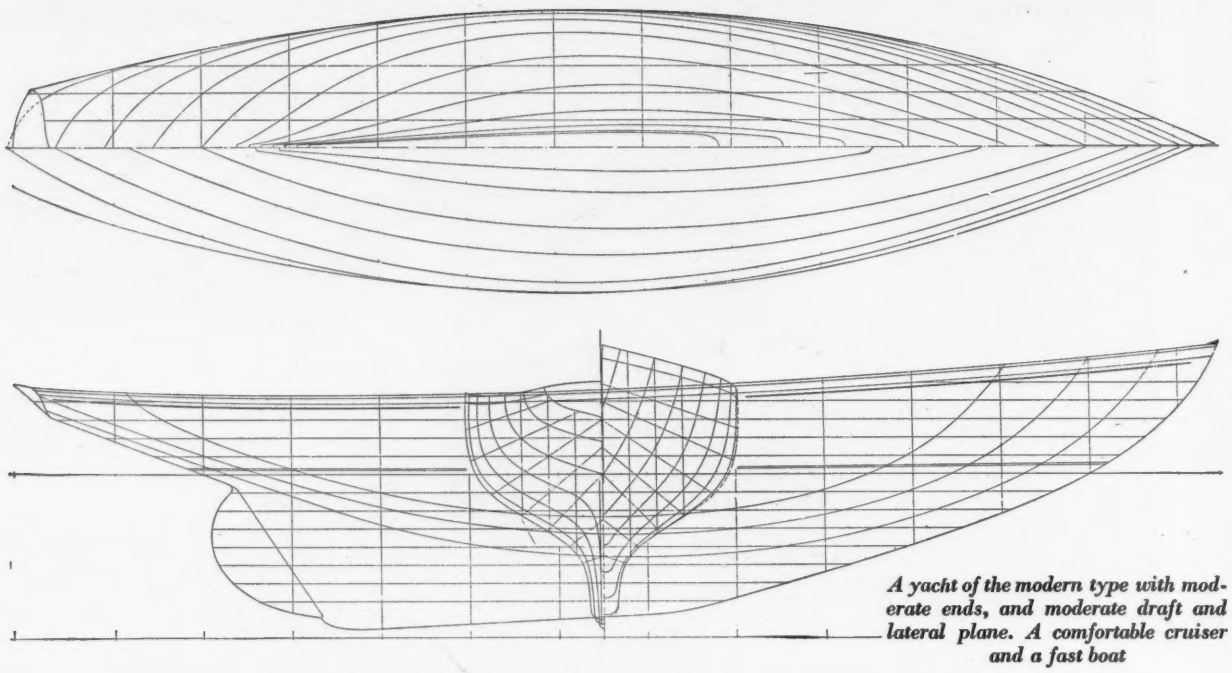
"Stormy Petrel" has a short rig, but enough if one is not in a hurry

Left. "We round into Albert Anchorage as the sun burnishes our wake into gold"

Below. The beach at the foot of an arroyo at China Harbor, Santa Cruz



We converged on the "Pandora" which was making good time under power with her sails furled



A yacht of the modern type with moderate ends, and moderate draft and lateral plane. A comfortable cruiser and a fast boat

So You're Going to Sail Across!

Part III—Consideration of Hull, Spars and Rigging

By FREDERIC M. GARDINER

IT IS A fine thing to own a yacht. One who has never owned one cannot fully appreciate this, and not all of those who have owned yachts realize the full significance of that ownership. It is not like owning an automobile or even a house. More, perhaps, like owning a thoroughbred horse.

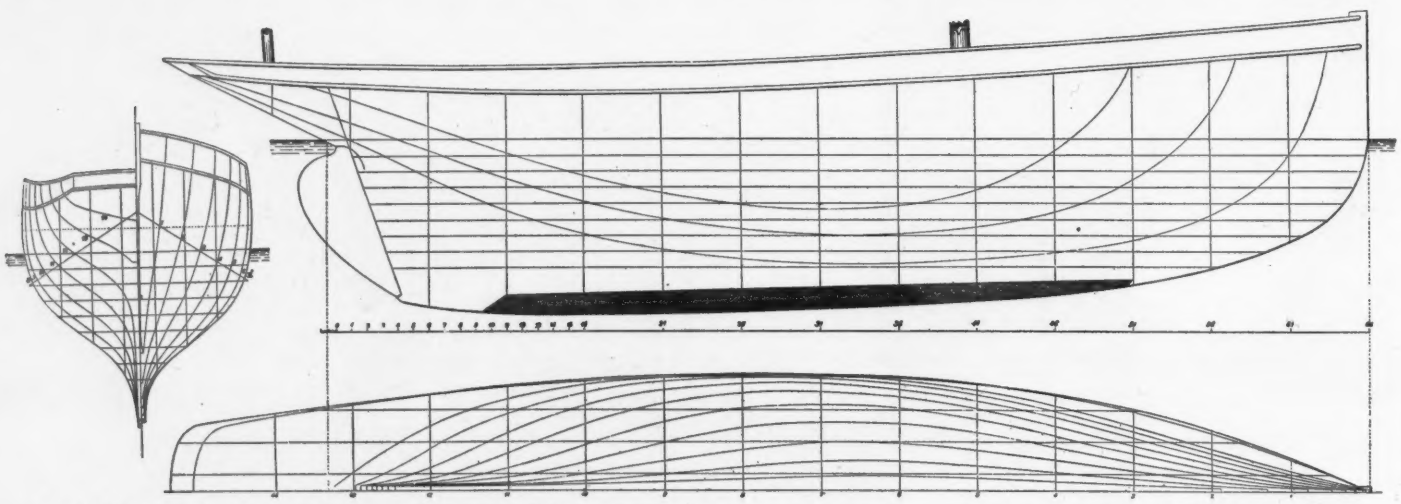
You have been warned in the two foregoing articles against some of the pitfalls into which people sometimes fall in purchasing a yacht. Take heed before you make the purchase! Because, if you are of the stuff of which sailors are made, it will be too late once you own the boat. You may not have noticed it, but it is true that to a yacht owner his yacht, with all her faults, is perfect. You will get that way too and resent, as any good yachtsman does, the kindly intentioned but blundering friends who come on board full of suggestions as to what you should do to make your ship a real yacht!

Hull, spars and rigging; layout and fittings; sails, gadgets and gilhickies — these make a yacht, and the greatest of these is the hull.

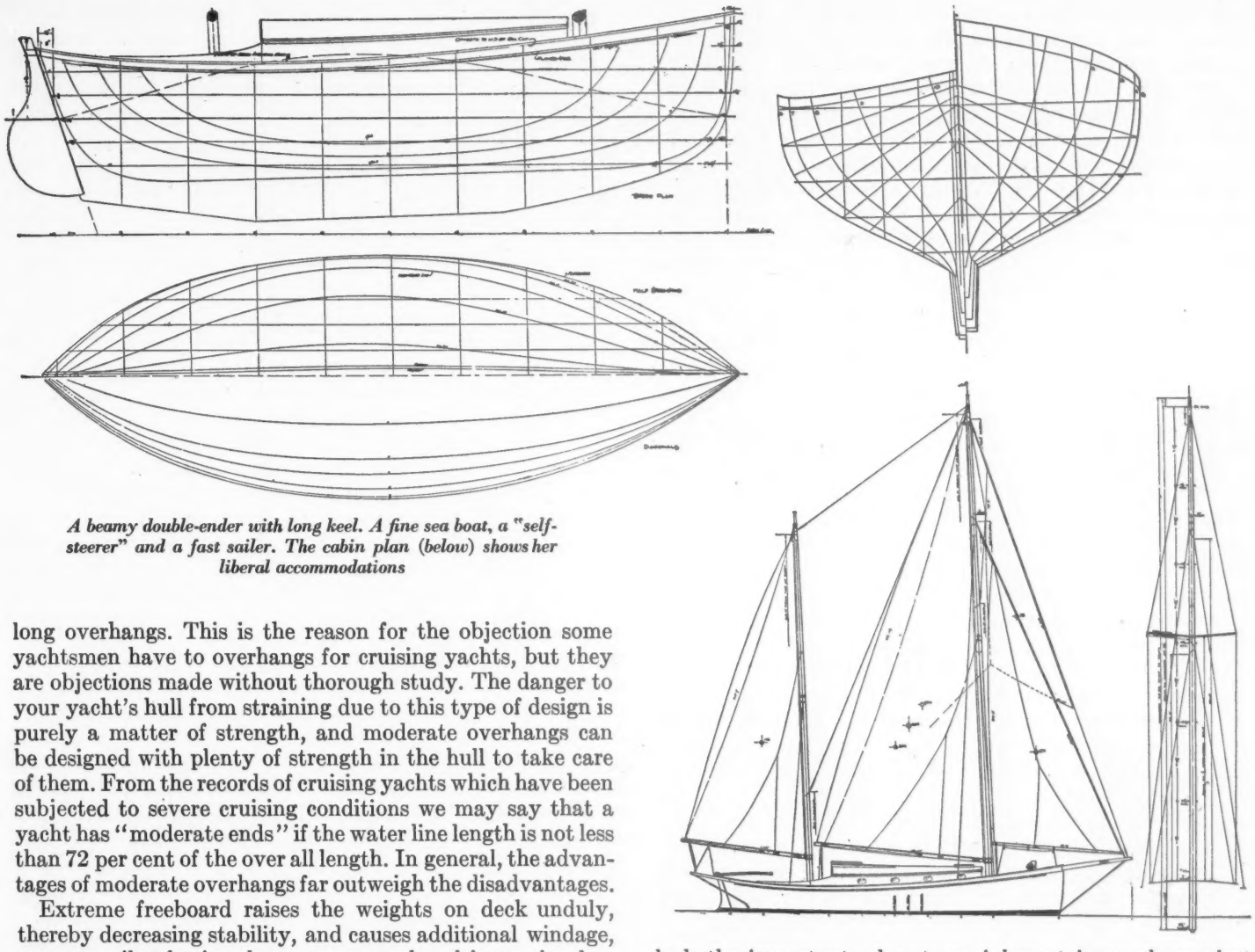
As you study the lines of the yacht you think you want to buy, either on paper — if you can interpret the drawings — or, better still, on the ways, the first question you should ask yourself is: "What will she do?" or "How will she act?" Nothing will give you a final answer except a thorough tryout, but her lines can tell you a great deal. For example:

Long flowing lines denote speed and ease in action; a "potbellied" appearance to the underbody threatens slowness and a disagreeable rocking chair motion in a chop.

Overhangs at bow and stern increase the water line length when the yacht is heeled and, by so doing, the speed; they make her fore and aft motion in a chop much easier on account of the reserve buoyancy contained in them. But if the overhangs are extreme they set up terrific strains in the hull in rough water and it is difficult to prevent pounding with



An old time yawl with deep forefoot and long, straight keel. Her water lines forward are fine or, rather, lean, and she would dive deep in a sea



A beamy double-ender with long keel. A fine sea boat, a "self-steerer" and a fast sailer. The cabin plan (below) shows her liberal accommodations

long overhangs. This is the reason for the objection some yachtsmen have to overhangs for cruising yachts, but they are objections made without thorough study. The danger to your yacht's hull from straining due to this type of design is purely a matter of strength, and moderate overhangs can be designed with plenty of strength in the hull to take care of them. From the records of cruising yachts which have been subjected to severe cruising conditions we may say that a yacht has "moderate ends" if the water line length is not less than 72 per cent of the over all length. In general, the advantages of moderate overhangs far outweigh the disadvantages.

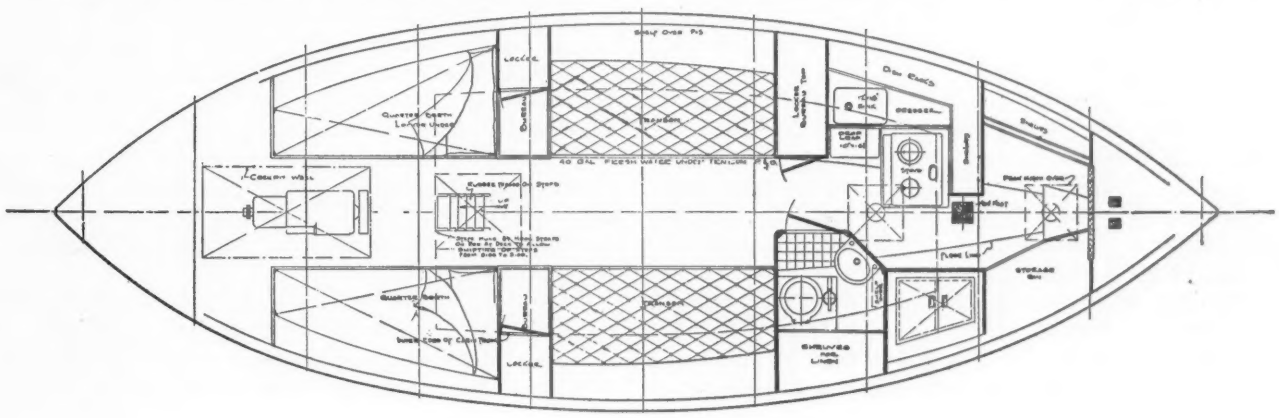
Extreme freeboard raises the weights on deck unduly, thereby decreasing stability, and causes additional windage, unnecessarily slowing down your vessel and increasing leeway. Too low freeboard makes Father Neptune too frequent a visitor. A fair approximation for freeboard is: Freeboard = ¼ beam, with a little more for extremely narrow and a little less for extremely broad vessels.

A deep forefoot requires a long keel, and unless the stem is straight or of the "clipper" type the profile will be unsightly. Thus, practically all deep forefooted yachts have one or the other of these bows. A yacht so designed should heave to well, and if well balanced she should "steer herself" better than other types. But she will be slow in stays, have more wetted surface than one likes for speed and, on account of fine lines forward to go with her straight stem, she is apt to bury easily and be wet.

A strict double-ender, that is, a yacht of the Colin Archer or whaleboat type, with pointed stern and no overhangs, will lack the important advantages inherent in overhangs but will have one great advantage over other types, *viz.:* exceptional ability in heavy following seas because the pointed stern parts the attacking waves. This tends to eliminate "pooping" and reduces yawing, an annoying and sometimes dangerous habit of some vessels when running before the sea.

A modification of this design is the yacht with a spoon bow and a "canoe" stern, *i.e.*, a pointed overhanging stern, a sort of spoon bow headed aft. This type seems to have all the advantages of a double-ender without the disadvantages. As compared with a stern with a counter, it loses some water line length when the yacht is heeled, and some deck and stowage space aft, but otherwise loses nothing.

A shoal draft yacht frequently behaves at sea exactly the opposite from one of deep draft. A vessel with shoal draft



will lie on top of the water and give before the waves, while a deep draft vessel will grip the water and pit her strength against the sea. There are arguments in favor of both as methods of attack. Under ordinary conditions a deep draft yacht will do better to windward, and a shoal draft yacht will make up for some of this off the wind. In a hard chance, the vital difference is that a deep draft yacht has a powerful righting arm which will bring her back on an even keel after a knockdown, while in a shoal draft yacht this power is lacking.

These are the important advantages and disadvantages of the more distinct types of hull. The very fact that each has its own points of excellence leads to a constant attempt at compromise among designers of cruising yachts. A study of the development of yacht hulls over the years shows that the trend has been steadily toward lines such as all the yachts in the graph shown in Part II (except the two smallest boats) exhibit. They are as nearly a perfect compromise, with the possible addition of the canoe stern, as will ever be reached.

In the three sets of lines accompanying this portion of our discussion, the characteristics above described are clearly brought out. The "straight-stemmer" is a yacht designed a good many years ago, and her lack of buoyancy forward is very evident. The double-ender is typical of a now popular type and, within her described limitations, has been an excellent performer. She is 31 feet on the water line and has splendid accommodations for that size. The third design is an example of the type of hull which is becoming more widely accepted as the best compromise for all around cruising.

When you buy your yacht, therefore, do not expect her to do what she is not designed to do. This is of the utmost importance if you are to get the full enjoyment out of owning her. And if you know what you want your yacht to do, don't buy one that won't do it!

Satisfied with the design of the hull, give thought, but not too much thought, to the rig. Not too much thought because, if you've found *just* the hull you want it will probably pay you to buy it and change the rig if it doesn't suit you.

We have already discussed briefly the characteristics of the more common rigs, and for our purposes that is sufficient. But a word may be said here regarding the sloop and the cutter rig, for the line of demarcation is debatable. It seems, however, generally accepted in this country that if a single-sticker's mast is just forward of amidships, with a double head rig, she is a cutter, and if it is just abaft the windlass she is a sloop. Let us accept this because it is of no importance what you call the boat. The *effect*, however, of stepping the mast aft is of great importance and is not generally understood. The cutter, as we have just accepted the term, might almost be called a one-masted schooner. Because, if the mast is stepped in the right place and the sail plan properly balanced, the forestaysail does, to all intents and purposes, just what the foresail of a schooner does. In short, in a well-designed "cutter" it should be possible to work to windward, or to lie comfortably hove to, under the forestaysail alone. In a cutter, therefore, you combine some of the advantages of the schooner with some of the advantages of the sloop. It is worth thinking over!

Inspect the yacht carefully before buying her. It is advisable to have a professional surveyor report on her, for few except shipbuilders or designers have sufficient knowledge to judge a second hand yacht thoroughly. If, however, you have confidence in the original designer and builder, a general inspection may be sufficient. Look first for spots of dry rot, particularly under the counter, around the stern and horn timbers, around the stem, and below decks around the icebox. Inspect the mast steps; be sure that each one has a drain hole. If the masts are stepped, turn up the canvas collars and look underneath them where the mast penetrates the deck. If the boat is generally sound, don't get the wind up because of a few bad spots but have them repaired.

Finally, the reputation of the designer and the builder is your greatest safeguard, and next to that the record of previous owners. Poor workmanship can be hidden in so many places on a yacht that you couldn't find it anyway without tearing her apart!

Inspect the standing rigging, particularly turnbuckles, for rust if they are of galvanized iron; and inspect running rigging for wear by opening the lay of each line. Replace any running rigging which has a feathery appearance when the lay is opened. Inspect the sails for mildew and their seams for weak spots.

If you are, as is usual for cruising, buying an auxiliary, have the engine inspected and overhauled. The comments on fire protection in Part I give important hints for the engine room. Electric blowers for forced ventilation are not yet commonly found on yachts, but they give additional protection out of all proportion to their moderate cost. They can and should be installed in such manner that the engine cannot be started until after the blowers are turned on.

The rapid development of Diesel engines in the last few years has brought them to a point where their weight and the space they require are reasonable, and the cost is no longer prohibitive. Where a new power installation is being considered, the added fire protection, not to mention economy in operation, is a strong recommendation for a Diesel.

Layout is so much a matter of personal taste that we shall touch on only two very general points. First, get full headroom if you possibly can, but don't get too much headroom. That may sound ridiculous, but if you have ever rattled around in a heavy sea in a yacht with 7 feet 6 inches headroom, you know exactly what is meant. The preferable range is 5 feet 11 inches to 6 feet 2 inches, with a little hesitancy at 5 feet 11 inches. Second, don't let the details of layout completely control your choice. There is a tendency to do so among a few. A clever workman can make surprising changes in a layout without heavy cost, and it is better to get a good rig and hull, put up with a few minor defects below, and correct the major defects.

Now buy your yacht!

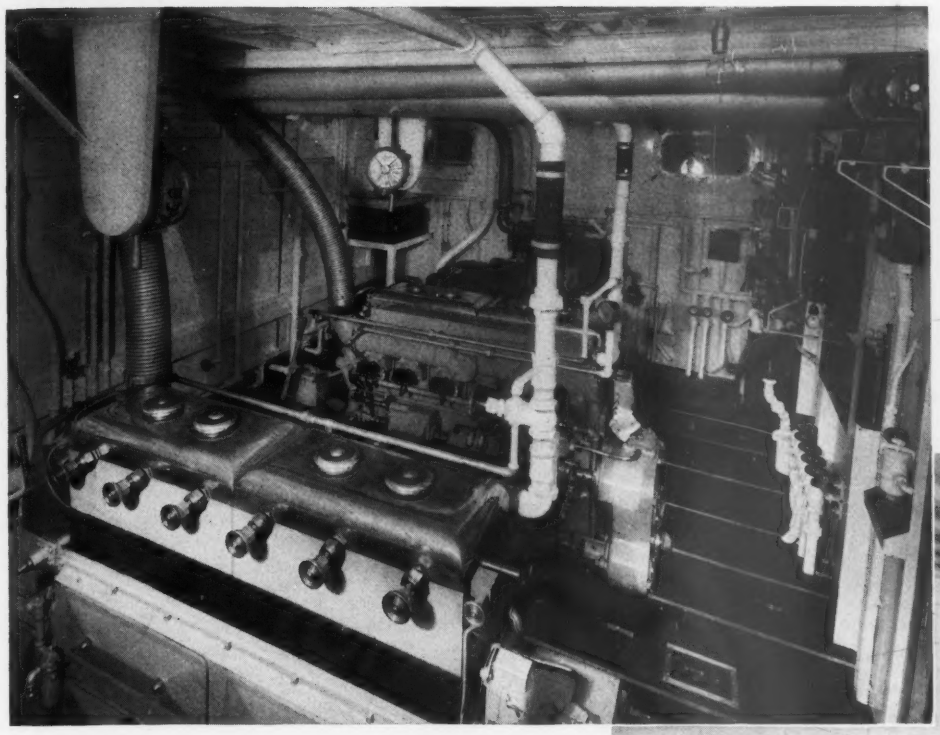
You have been told enough to make you able to do it with confidence. Much more could, of course, be said. There are complete libraries on yachts — design, construction, handling, equipment, etc. We cannot, unfortunately, present you here with even a complete volume. It has been possible only to touch the high spots, and particularly those spots which do not appear to be given the rank in importance they deserve. We have not, as a matter of fact, even discussed the details of construction, because to do so would develop intricacies which would lead us on and on and on. Actually, about all the yacht purchaser needs to know about construction is: "How is she fastened?" and "Does the builder do good work?" Much must, therefore, be left to further study if you wish to pursue the subject. There are three books you may well read, and then keep on your yacht's book shelf for future reference. They are:

"Sailing, Seamanship, and Yacht Construction," by Uffa Fox. Not only a delightful book to read, but full of the details which lack of space has made it impossible to present here.

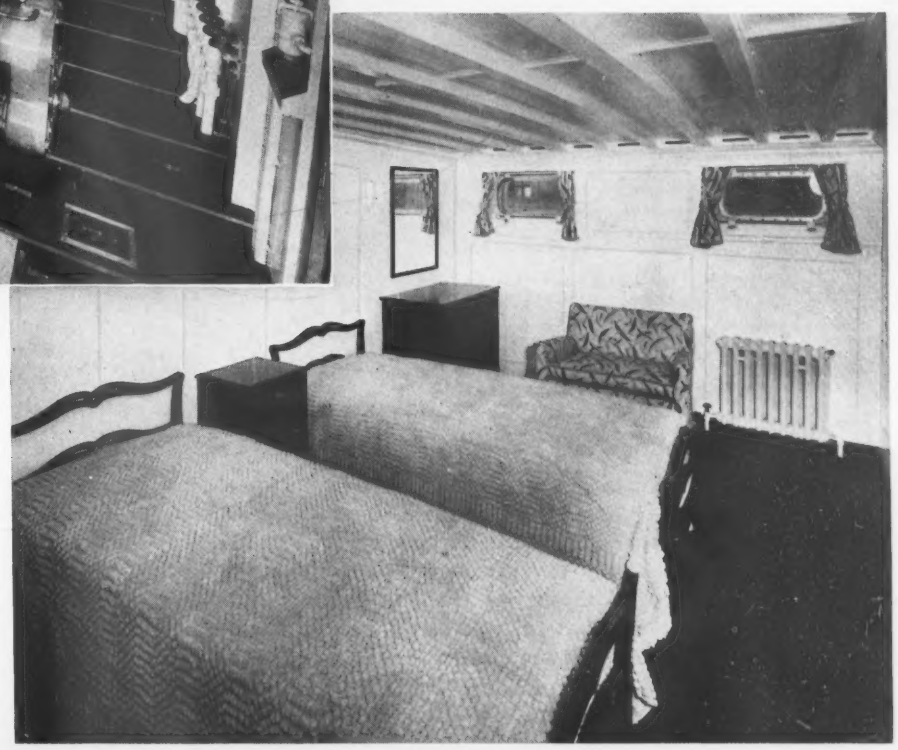
"The Galley Guide," by Alexander W. Moffat. Because it will not only enable you to save your palate from boredom, but it has a complete list of every sort of equipment for cruising, and a list of practically every food known to the A & P!

"Learning to Cruise," by H. A. Calahan. He approaches his subject with enthusiasm. If all yachtsmen do not agree with everything he says it is because all yachtsmen do not agree with everything anybody says!

Bon Voyage!!



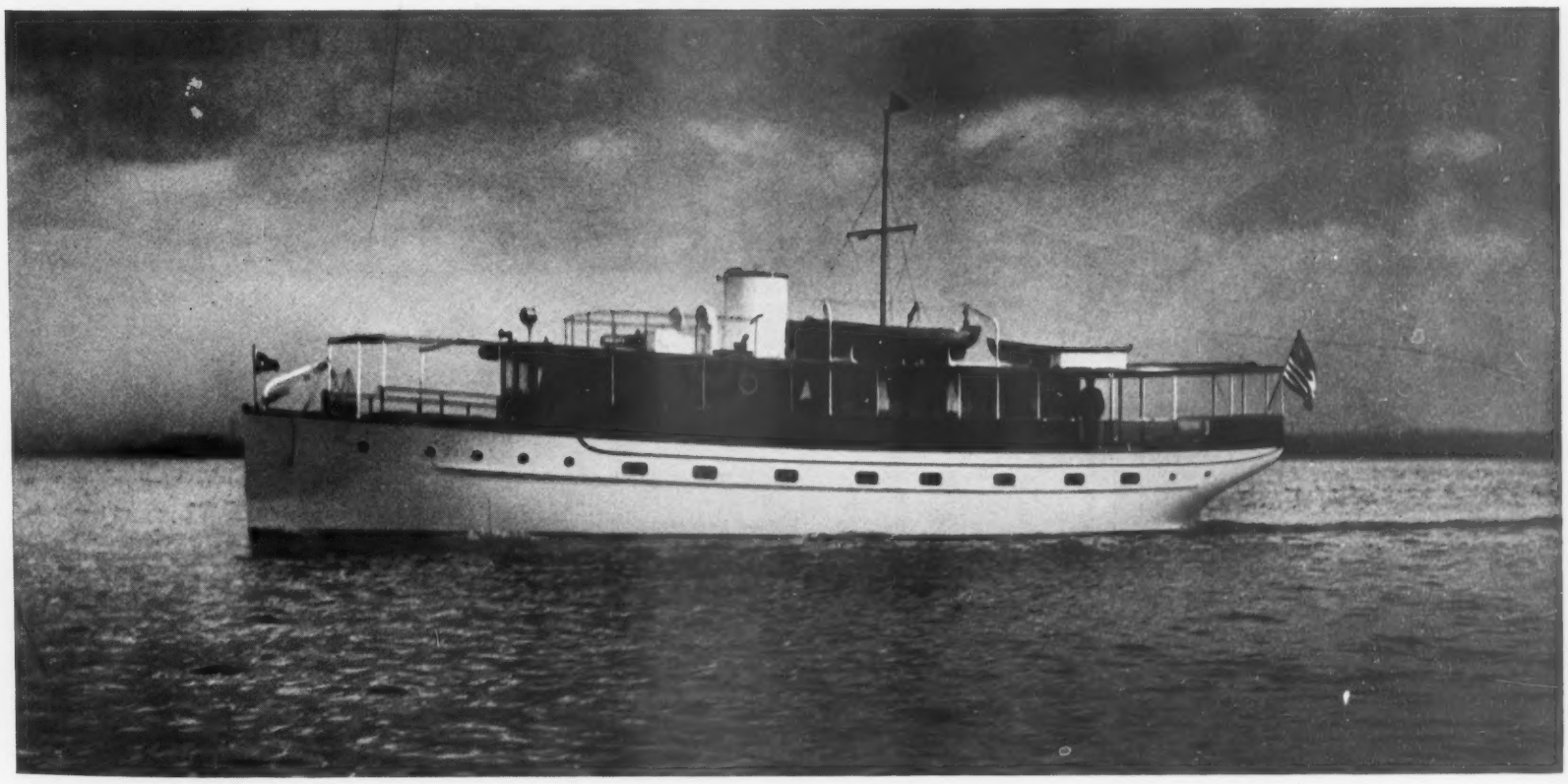
The owner's stateroom (below) is large and airy. There is another double stateroom and a single, below decks, a combination dining saloon and living room on deck, galley and forecastle below. Captain's room, and pantry are in the deckhouse. The owner's staterooms and the engine room are fitted with the new type Trumpy rectangular windows which slide instead of being hinged

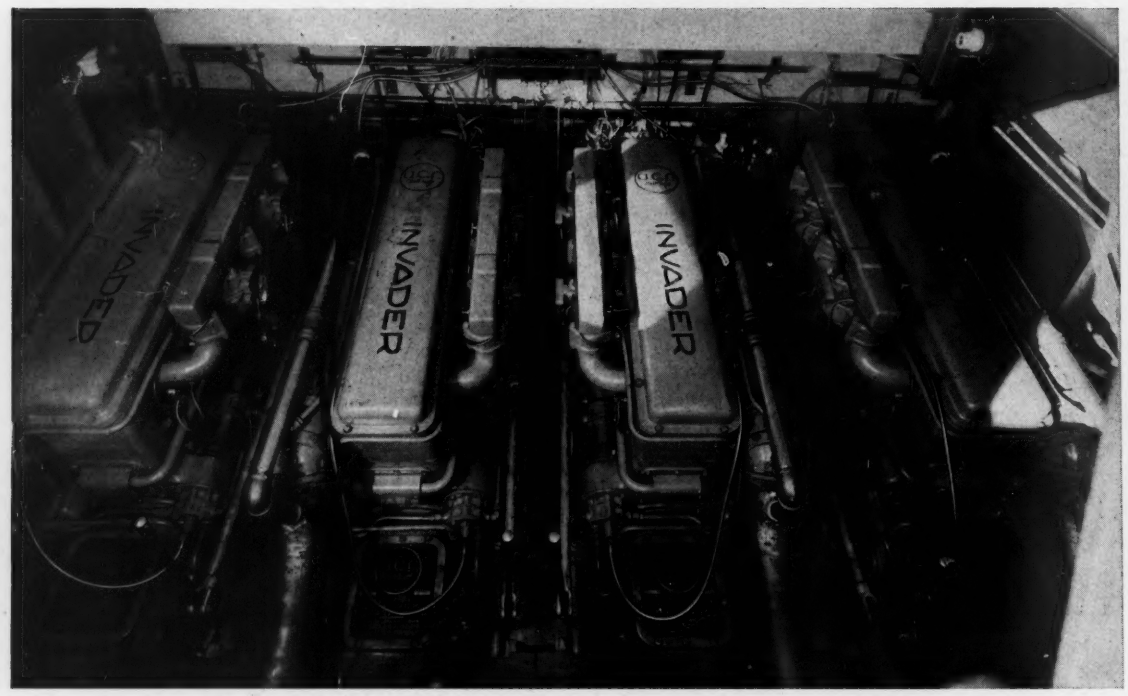


"Innisfail"

A Shoal Draft Diesel Cruiser

She was designed and built for Joseph M. Cudahy, of Chicago, by the Mathis Yacht Building Co., of Camden, N. J. Her over all length is 85' 0"; water line, 74' 6"; beam, 18' 0"; draft, 3' 6". Two 100 hp. Winton-Diesel engines with 1½:1 reduction gear drive her 12 m.p.h. A 5 Kw. Buda Diesel generating set supplies electric current





The four Hall-Scott Invaders deliver 270 hp. each and drive the new U. S. Navy Sea Sled at 46.559 m.p.h.

Uncle Sam's New Sea Sled Tops Forty-six

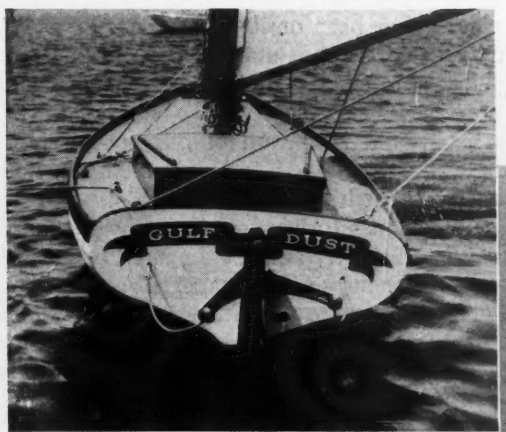
AN AIRPLANE rescue boat, designed by the Hickman Sea Sled Company for the United States Navy, was completed last month by the Greenport Basin and Construction Company of Greenport, Long Island. She ran her trials successfully late in December. The principal features of the boat are her inverted V-bottom hull with cut-away chines and four surface propellers. The new boat is the result of twenty-five years of research with this type of hull and the broad practical experience gained in building many similar boats.

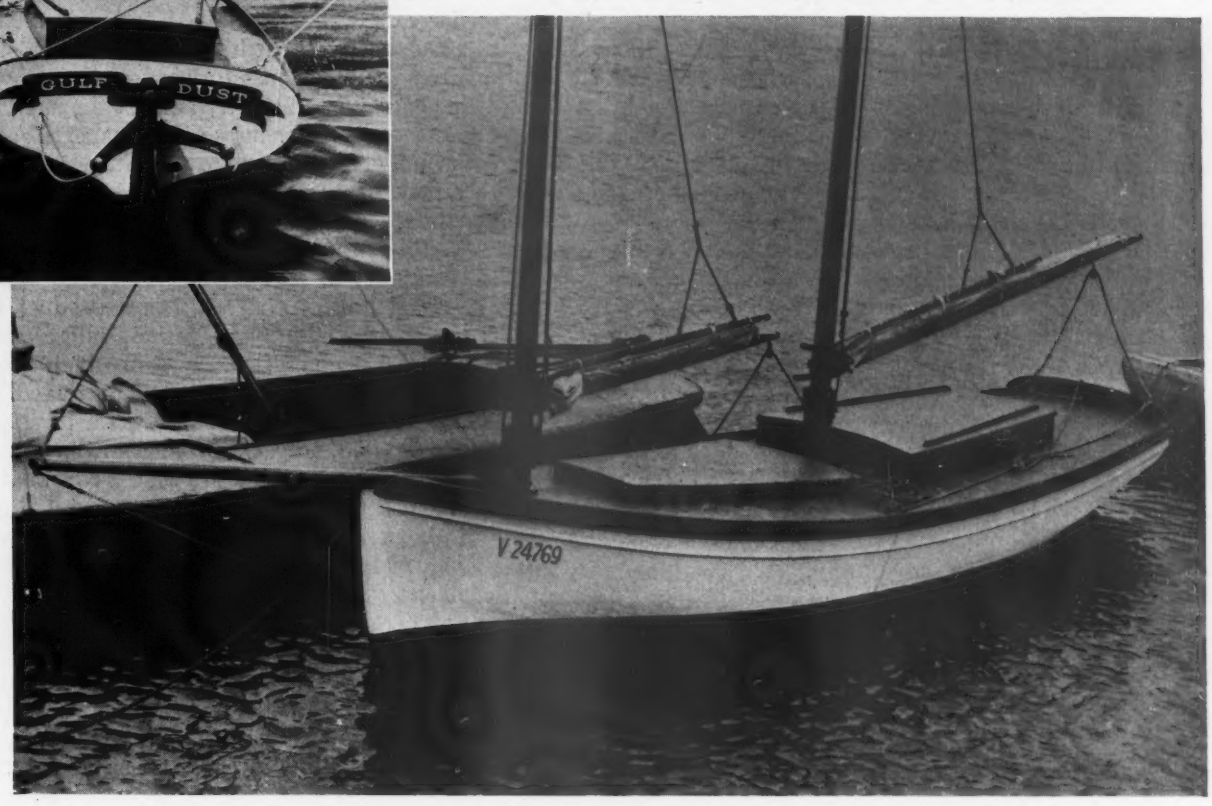
Forty-five feet over all by 12 feet 6 inches beam, the new Navy Sea Sled has a displacement weight of approximately 15 tons. She is equipped with a cabin forward, control room amidships and motor room. She is powered with four Hall-Scott Invader motors, 270 hp. each. Each one of these motors is connected by direct drive to a surface propeller. Maximum horse power is delivered at 2100 r.p.m.

During the trials the following results were obtained, the official runs being made all on one day and with only one set of Hyde propellers:

The best speed recorded over the mile course was 46.559 m.p.h. at an average of 1950 r.p.m. On this run she carried 14 men instead of only the six required. On the one-hour endurance run she covered exactly 46 miles, and on the two-hour endurance run she averaged 38.777 m.p.h. at only 1700 r.p.m. At 1200 r.p.m. the big boat was planing.

The new Hickman Sea Sled for the U. S. Navy as she ran her trials. On her endurance run she covered 46 miles in one hour





"Gulf Dust" does not look her size but seems about three times as big as she really is. At the left is seen the wine glass stern and the steering gear

The Auxiliary Yot "Gulf Dust"

A Marine Conveyance of Sprightly Personality

By GIDGE GANDY

TO ERSTWHILE yachtsmen who perforce have sent sweet ships down-river on the low financial tide and who abide upon land with a gnawing fear that mildew may gather upon their salty souls, may we dedicate the gentle art and pastime, the modern sport of kings dethroned — YOTTING!

Now a YOT — be it defined — is a *nouveau pauvre* man's seagoin' substitute for that which he can no longer afford. Being something less — much less — than a yacht, but something more than a mere boat, it possesses the general appearance and many of the details and dimensions of a yacht or commercial vessel, scaled down to the size of the modern bank account. Did it suffer with colic, like a bloated horse, 'twould be a "tabloid" but it suffers not. It must be seen to be appreciated — at a distance!

Such a maritime vehicle is the auxiliary schooner yot *Gulf Dust* of St. Petersburg which has been "in commission" continuously through sixteen months of Florida sunshine, summer squalls, winter northers and, believe it or not, one tropical hurricane which she rode out last September.

Enjoyably uncomfortable at all times, she has cruised and even raced with success. Fundamentally a motor sailorette, she takes one places over the shallow waters of bays and bayous or the open water of the Gulf of Mexico in virtually any weather and, so long as her crew can stay with her, she *can take it!* The job of staying with her has reduced her crew's 45-year-old waistline to high school dimension, and she affords those hardships which *should* build character.

As a practical tug boat, she has towed racing craft many miles between ports, and on regatta days has brought strings of entrants to the starting line. Her reputation as a salvage vessel deserves the envy of a Coast Guard Cutter, *Gulf Dust* having brought in half a dozen disabled motor boats and so many capsized sailing craft that the count was lost months ago. Because her little four-cycle coffee pot is always ready to percolate in sunshine or squall, she is usually the first buzzard to the scene of rescue!

And being a *yot*, she performs under power at a taxi rate of $0.013 per nautical mile, consuming little more than a quart of gasoline per hour and less than three quarts of lubricating oil per year. Forsooth, she's as economical as a Scotch anecdote. Her very size engenders sympathetic shore hospitality for her crew when she visits a port of call. Her last hauling out bill totaled but $3.40, a quart of bottom bronze being more than sufficient for a two-coat job.

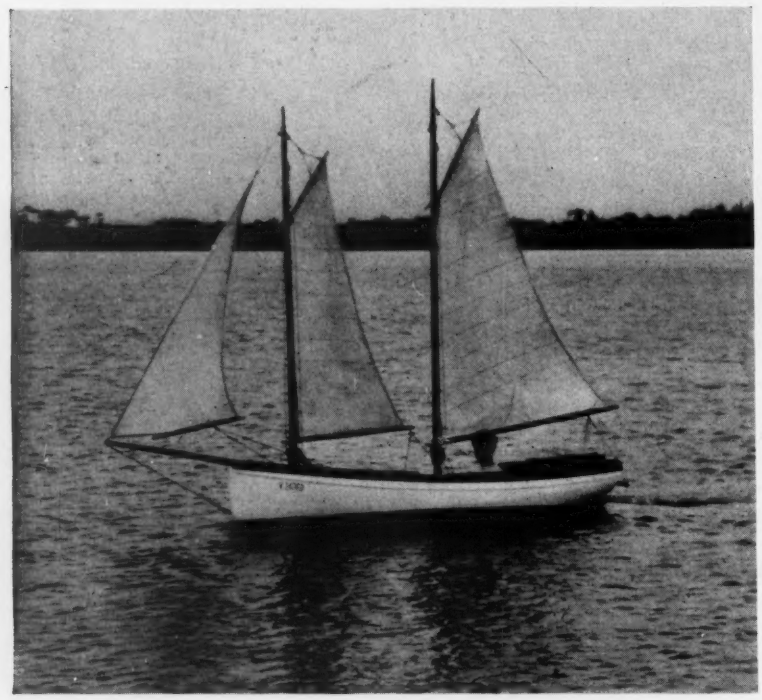
With a deceptive appearance of greater speed, she logs more than six and one-half knots and maintains a pace close to that figure in rough going. Nor does she lose much speed when towing larger craft. Not long ago she towed five keel sloops against a current at what appeared to be a five-knot gait.

Gulf Dust approximates a one-third scale model of a 36-foot schooner, with minor details simplified for practical

purposes. Trim, masts, spars, fittings, rigging, and even her bunting and awnings, are close to exact scale. Her white topsides, bronzed underbody, sharp green deck trimmed with "mahogany," and varnished masts and spars, give her plenty of sex appeal, to say nothing of her rainbow-hued name board on the stern.

Measuring 12′ 0″ in length over all, 4′ 2″ breadth of beam, 1′ 9″ draft, she carries 90 sq. ft. of sail with the aid of 175 lbs. outside ballast consisting of a lead casting and brass sandshoe. A Palmer Y.T. motor of two-mule power turns a detachable 12″ by 10″ Hyde two-blade propeller. Without clutch, the propeller shaft is but 2′ 3″ long. Her cruising displacement is 700 lbs. with crew aboard.

The deck plan is that of a commercial schooner. A miniature cabin under the main boom is a hatch cover which slides aft and drops into notches in the coaming to form a cockpit where the crew sits between the mainmast and flywheel when the ship is under sail. Under the fore boom is a "cargo hatch" cover which slides forward to form a cockpit forward



Under sail "Gulf Dust" looks like a real, sure enough schooner

But when she is battened down and the crew stands on deck — What a surprise!

of the mainmast, where the crew drapes its legs when the ship is under motor power in balmy weather.

Both hatches are closed in unfriendly weather when *Gulf Dust* submarines with her crew standing or crouching on deck, endeavoring to hold on and at the same time solve the problem of how the carburetor gets air.

The steering gear consists of a 90-degree yoke bolted to a carved rudder head, from which an endless line leads forward through small holes in the transom, through the hull under the deck beams, and out through small holes in the deck forward of the mainmast. This arrangement, with sufficient length of line, permits steering from any position on deck or below, from stem to stern.

Standing rigging has been omitted, so that the entire rig may be laid on deck, to pass under closed bridges or the overhanging tree branches which arch Florida's jungle rivers.

An exodontist would be proud of our special tool for propeller extracting. The fixed end of an old carpenter's clamp has been notched to fit the propeller shaft. It is slipped on the shaft just forward of the propeller and the movable end screwed tightly against the shaft end. A twist, and *presto* — propeller pops off the taper!

When under sail and becalmed in deep water, the crew merely reaches over the stern, places the propeller on the shaft, then a pair of nuts, and gives them a turn with a wrench. The switch is closed, the flywheel tugged, and the calm is conquered.

The small hull of *Gulf Dust* is a product of the Greek colony at Tarpon Springs, Florida, where swarthy sponge fishermen tow such craft to the Gulf where two men employ these boats, a pair of oars, a glass bottomed bucket and a length of galvanized pipe with a three-pronged hook on the end, to gather sponges from the sea floor. Although she was no more than a row boat, she did *look* like a little schooner when we squinted our eyes.

Between drinks of *Mastika* (wow!) we purchased her, placed her on a borrowed motor trailer and towed her to the ole homestead.

There we launched her and, with a borrowed leg-o'-mutton sail, mast and spar, learned where her centers of effort and lateral resistance should be. With 400 pounds of inside ballast, we also discovered how deep she should be buried and how much outside ballast would be required, and where it should be placed after motor weight, etc., were allowed for.

Upon an ordinary bathroom scale, the hull weighed 200 lbs. and, as work progressed, such items as deck material, masts, etc., were placed upon the scale and their weights tabulated. Primary arithmetic told us that a total displacement of 650 or 700 lbs. would just wet the water line we had painted on her at a height which made her freeboard look "natural," and that our total weight of original hull, decking, hatches, ceiling, masts, spars, motor, tanks and gasoline, plus an allowance for dunnage and cruising equipment (shore tent, etc.), left approximately 175 lbs. for out-

(*Continued on page 172*)

"Director" Hoists the Tricolor

The Long Stretch of 3700 Miles from the Galapagos Islands to the Marquesas

By

BRUCE AND SHERIDAN FAHNESTOCK

WITH a sack of limes, two tanks full of undrinkable water, a hundred pounds of grouper we had salted, a stuffed penguin, and a fine collection of insects, *Director* stuck her Boothbay nose out of Tagus Cove, in the Galapagos Islands, and we were on our way to the Marquesas, far across the vast Pacific. We optimists aft, with the exception of that old grouch Dennis Puleston, told ourselves that the 3117-mile run *couldn't* take over twenty-five days!

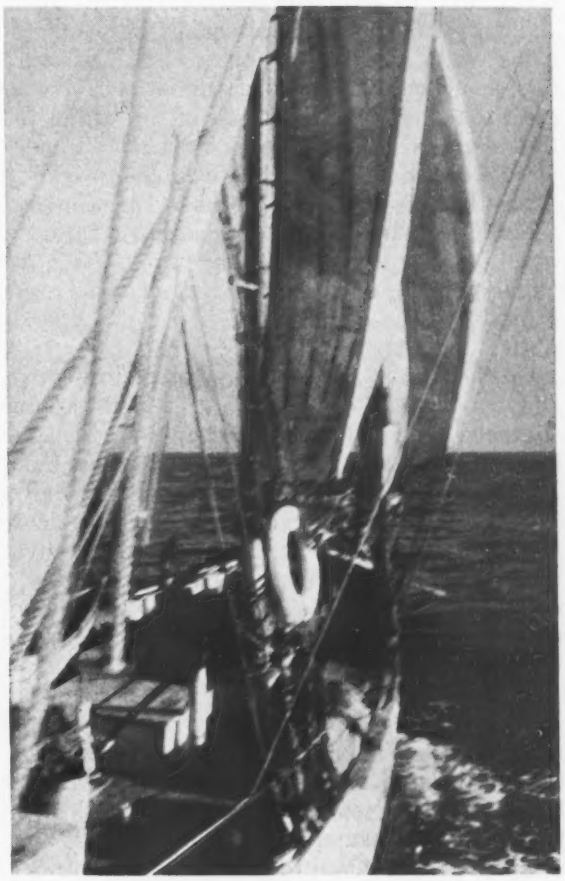
But what did the wild wind say? Nothing. The mythical trade which for some reason stuck to the *Svaap* on her fast passage, blew not for a ship that needed wind and plenty of it. We foamed out to a point within sight of Narborough and Albemarle Islands where the wind left us flat. We sat there twiddling our thumbs for two days at our point of departure, which was ten miles south of the equator.

Rafts of fog came in and blotted out the land. Then a breeze sprang up and next noon we were fifteen miles *north* of the equator after holding a W by S course for the twenty-four hours. Awful!

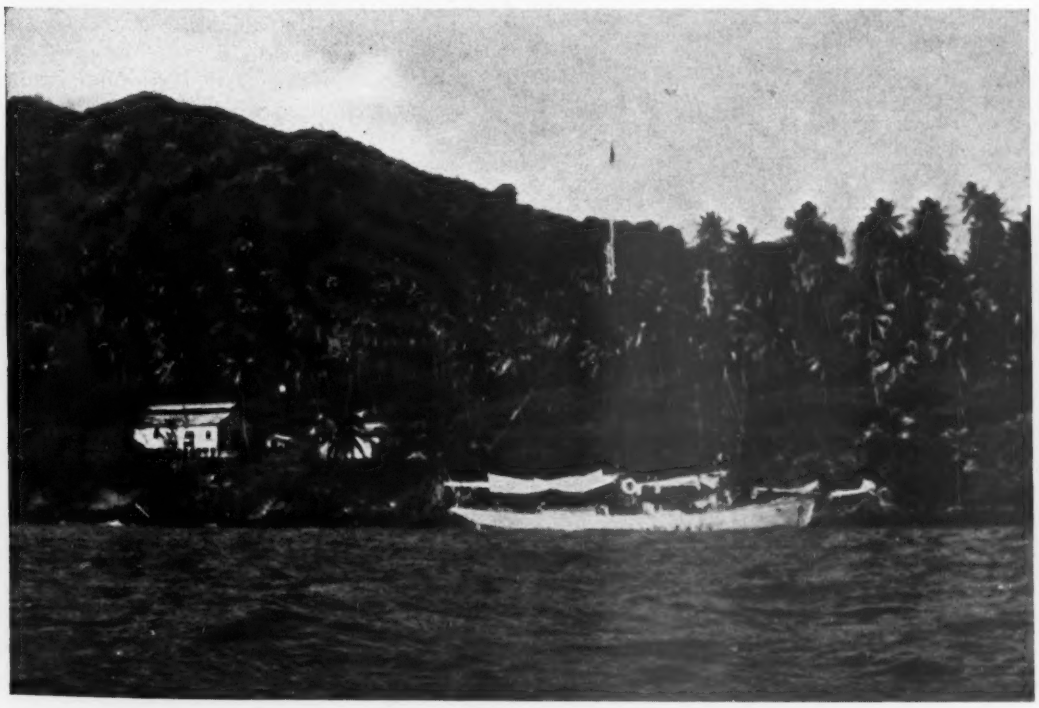
The skipper said: "Current! Curse it!"

After a week on a SW course we finally regained the line. At this point all hands fell ill as a result of the water and it was a week before we were able to stand watches properly again. We held a conference. Decision: The charts are all wrong. Why aren't there a few islands out there where a ship can water? Our water was liquid cyanide or something equally deadly and the fact that we were well again probably meant that we had become immune to it. But it tasted just as bad.

Director has a large library and we are all hearty readers. When the ship was steering herself — if ever — we read incessantly. Off watch, we read all the time. The sea was so smooth that Dennis made a few detail water colors of fish for the museum. The last day out we had read right around the shelf and were down to "Kent's Mechanical Engineer's Handbook" which has 1379 pages and a lot of pretty pictures of dynamos and jacks for moving houses and full instructions for building a silo in six easy spasms. It said nothing about how to encourage the wind to blow. We have a lot of faith in the skipper's Spanish recitation at the mainmast each morning when he jabs a knife into the wood, but it has *never* worked.



Loafing along through the trades, which were light the greater part of the way. Not one stiff or sudden puff touched us on the entire passage



"Director" at anchor in Taa Huku Bay after 4,000 miles of Pacific voyaging, with a month's run from Albemarle Island to Hiva Oa

On the 14th of June (we had sailed some time in April) we felt a bit creepy to discover that we were as far from any land as it is possible to get in this world. For over 1500 miles in any direction we could have shouted in vain! Several days before, we had seen a steamer's range lights ahead. She was crossing us headed north on the Portland, Oregon — Valparaiso track but she disregarded our white Very flare, our shouts, and the radio message Bruce banged

out. (We've come to look tolerantly at the radio set lately — tolerantly, but without hope.)

A waterspout waggled around us when we were a few days further along and we tried the old hand's experiment with a bullet. The elephant gun, aimed at the pile of water, succeeded only in wrenching the marksman's shoulder.

Tiny flying squid dashed against our cabin tops at night, along with innumerable flying fish, and were promptly doused in formalin to be classified later. We sailed into a great school of whales and one of the largest took a notion to look us over. Alongside for over half an hour, we got his picture on movie film and then forgot to take stills of him. At last he beat down hard with a tail as wide as our ship and headed back towards his friends. We netted a strangely beautiful shell of a magnificent purple shade from which a bubbly trailing mass like pearls hung. Sadly enough, after a few days the gorgeous hue faded and the shell became white.

On the 20th of June we found that our flour was bad. We had run out of cigarettes and weevils appeared in the spaghetti! Beef and rice was the fare from then on. We hadn't been able to stock ship with anything more than occasional fresh food in the Galapagos since leaving Balboa on April 11th. One after another, our pots and pans developed leaks and eventually we had to cook in biscuit tins over one weak, candle-like burner. The stoves had gone flooey, too! Every meal was like the last. Tinned fruits were low; canned tomatoes, spinach, and string beans, strong; canned corn, weak at the close.

But life on the Pacific was far from boring. Our menagerie kept us jumping. Up forward, all over the deck and tangled up in the halliards and chain, were seven of the giant Galapagos land tortoises which we were carrying to Tahiti for shipment to New York. The boa constrictor, captured in the jungle at Panama, was still aboard in his box amidships, Dennis having refused to give him up at our departure. He is a "pet" now. Six chickens from the Ecuadorean settlement at Progresso, St. Cristobal, were cackling gaily in their box by the starboard rail. They cackled even louder when the rail went under once or twice.

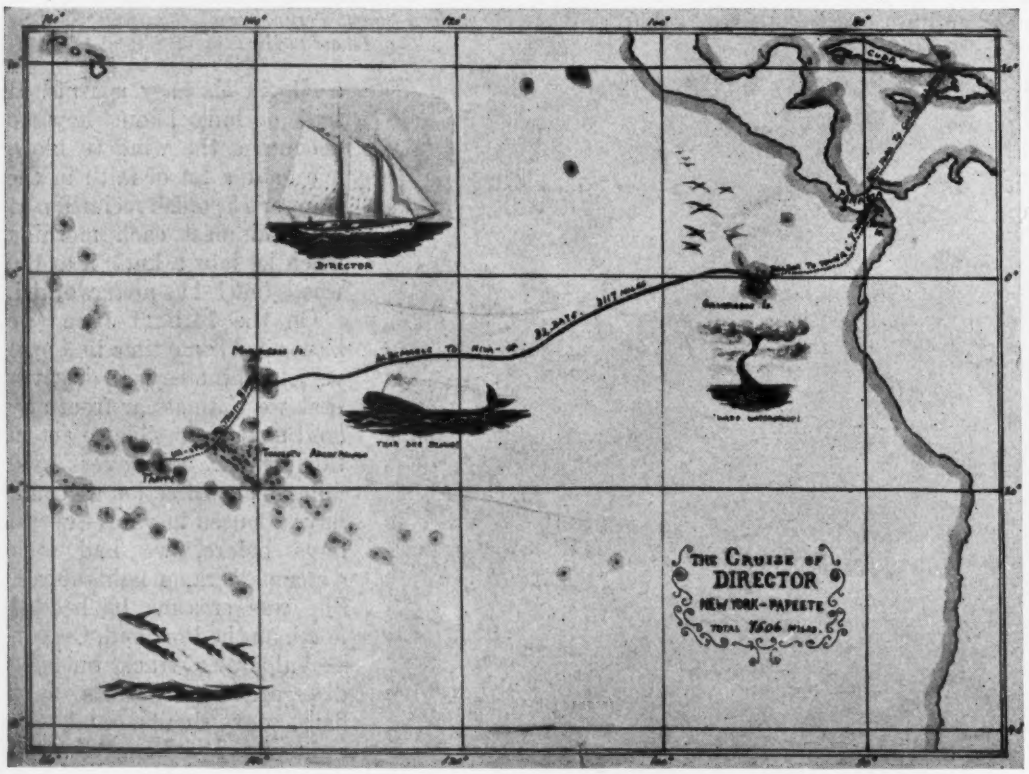
José, the bright green parrot from the Pearl Islands, would stand on the back rest of the wheel box, cursing volubly in Spanish and English and repeating all orders. She announced the day's runs and all meals. The blasted bird insists upon eating at the table and must have coffee in a special cup. She eats more hardtack than any member of the crew. Tiger, the noted turtle terrier from Tortola, guards Denny's bunk night and day. A little disgusted with fools who go to sea for so long, she would come on deck once a day, survey the vast Pacific, then dive below to sleep again.

It seemed for a while that when we sailed a foot ahead, the current set us back two. This is almost true, for in the first two weeks we covered only 860 miles. Fine trade clouds flew by far overhead but never condescended to work at our level.

While outfitting in the Canal Zone we had made a 30-foot yard of Oregon fir which we hoist high on the foremast. We fitted it at Postoffice Bay and it looks very cute! Some day in the distant future (in the Roaring Forties maybe) it will blow hard again and we shall be able to use it. It supports two inverted spare foresails which are easily handled and come down on the run when the outer halliards are let go first. It is braced far aft to the main sheet bitts. We plan to carry it while in Trade areas, and bring it on deck in the variables.

Were we ever to sail to the Galapagos again, and depart from them headed west, we should change our plan for watering. We would water at St. Cristobal and not at Tagus Cove, where the water is scarce and foul. Postoffice Bay, on Santa Maria Island, would be the last port of call because there is an abundance of fruit and game there, to be had for the picking and hunting. Also, that would place us farther south and thus deeper in the trades. The equator, at the Galapagos, forms the thin edge of the southeast trade. We would sail due south for a day or so before easing off towards the Marquesas, keeping in about 10° S most of the way.

Watches, on the long run, were easy — two hours a night with two hours some time during the day. When she steered herself, all the more rest. We almost hoped for squalls, or a good thrash to windward, but none came. Not one stiff or sudden puff touched us on the entire trip. A week after we arrived at Hiva Oa, however, the wind was really piping up outside and the trade was reenforced beyond comfort so that even the deep anchorage kicked up all the time. Tired of the rolling, we moved to Hana Menu.



Three days before our landfall we were in straits as far as supplies were concerned. We had as much of the terrible water as we wanted, though; almost half our supply was left. When we were able to say: "Tomorrow, we'll see it!" we didn't care about eating any more. Our eyes were hungriest of all. We longed, for once, for the green hills and palm filled valleys we knew to be just beyond the horizon.

At eight o'clock on the evening of the 27th of June, we had but sixty miles to go. No moon, and for the first time we had a snorter behind us. Bruce went on deck at ten to find her driving along like a steamer

(*Continued on page 165*)

Under the Lee of the Longboat

By "SPUN YARN"

CONTINUED story: It seems that Captain J. Barton Scattergood, about whom we have been worrying for months, didn't get as far as Hatteras and is safe ashore again. During the frightful blizzard that raged in the upper Chesapeake a few days after Christmas, Captain Scattergood, who was bound officially around Cape Horn in his yawl *Jean*, was picked up unofficially off Betterton, Maryland, by the passing freighter *Albany*. The *Jean* sank, prey of wind and cakes of ice, and the Coast Guard will now cross her off its list of prospective rescues.

> Better to have sunk off Betterton, say we,
> Than off the lonelier shores of South Amerikee.

An interesting question, which I paraphrase, came up for discussion at the annual meeting of the North American Yacht Racing Union: "If a skipper sees that he is going to be too early at the start of a race, is it ethical to slow his yacht by dragging a bucket astern?" My opinion wasn't asked, but I see no reason why it isn't ethical. It is entirely so to slow down by slacking sheets when on the wind or hauling them flat when off the wind, and we also have full sanction to anchor to keep from being carried back from the line by a foul tide. So why not drag a bucket? But there is some doubt of the propriety of this device, and when I raised the point at a general meeting of the Lee Rail Vikings I was surprised to find them solidly against it, on the ground that it will lead to excesses and to unpleasant recriminations. "You can at least be consistent," I urged, after all opinions had been aired. "Isn't it a fact that before the start of important matches you have frequently tied buckets to the keels of your opponents' boats?" "Yes," admitted the chairman of the Vikings' race committee. "But that's tactics, not ethics."

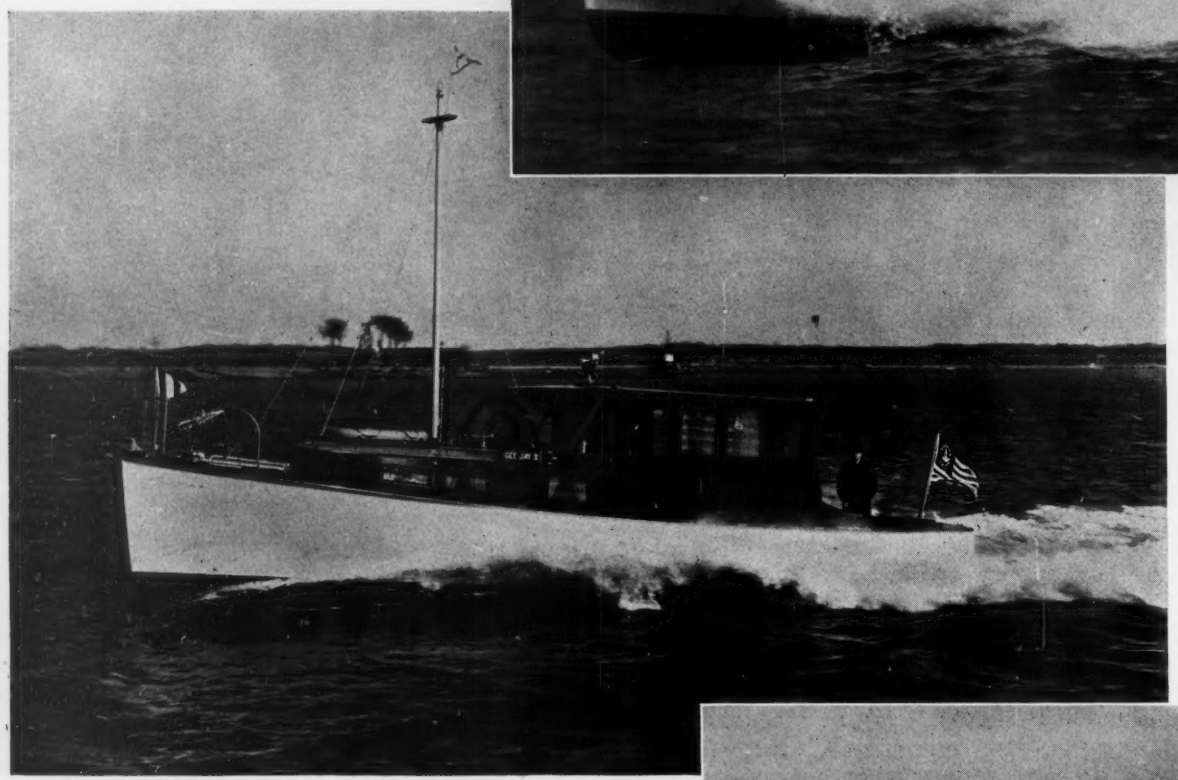
I see that George Roosevelt now has a hand in the direction of my three favorite yachting organizations. He is commodore of the Cruising Club of America, rear commodore of the New York Yacht Club, and secretary of the North American Yacht Racing Union, of which his brother Philip is president. Although this interlocking directorate may look to you like a first step toward bureaucratic regimentation of American yachting, I have no fears. But I'll continue to sleep with one ear open and if I hear of any scheme to combine the three organizations in one New York Union of North American Racing and Cruising Clubs I'll be the first to let you know.

Perhaps I spoke a little loosely in saying that these three are my favorites. The Lee Rail Vikings really have the place nearest my heart. Philip Roosevelt (who is not a member) made me commodore of this club at a recent gathering and I accepted the exalted office amid snorts and catcalls. It's up to me to appoint my associate flag officers, but beyond saying that I like the nautical ring of Mariner (Sailor) Eccles's name, I have no politicians in mind at the present time. When the ideals of the Vikings are better understood—to take all spontaneity out of sport, to turn all existing yacht clubs into social rackets, and to make sharp practices the rule rather than the exception in racing — I feel sure that many candidates will rally to our banner. The banner is, by the way, the code flag "B," which stands not for what you think it does, but for Business.

By the way, I got off to a rotten start a few months ago when I was informed that the bills of a visiting English yachtsman were padded by an American yacht club. He writes to say that he was most courteously treated by our clubs and wants me to make it clear that the complaints I registered in print did not emanate from him.

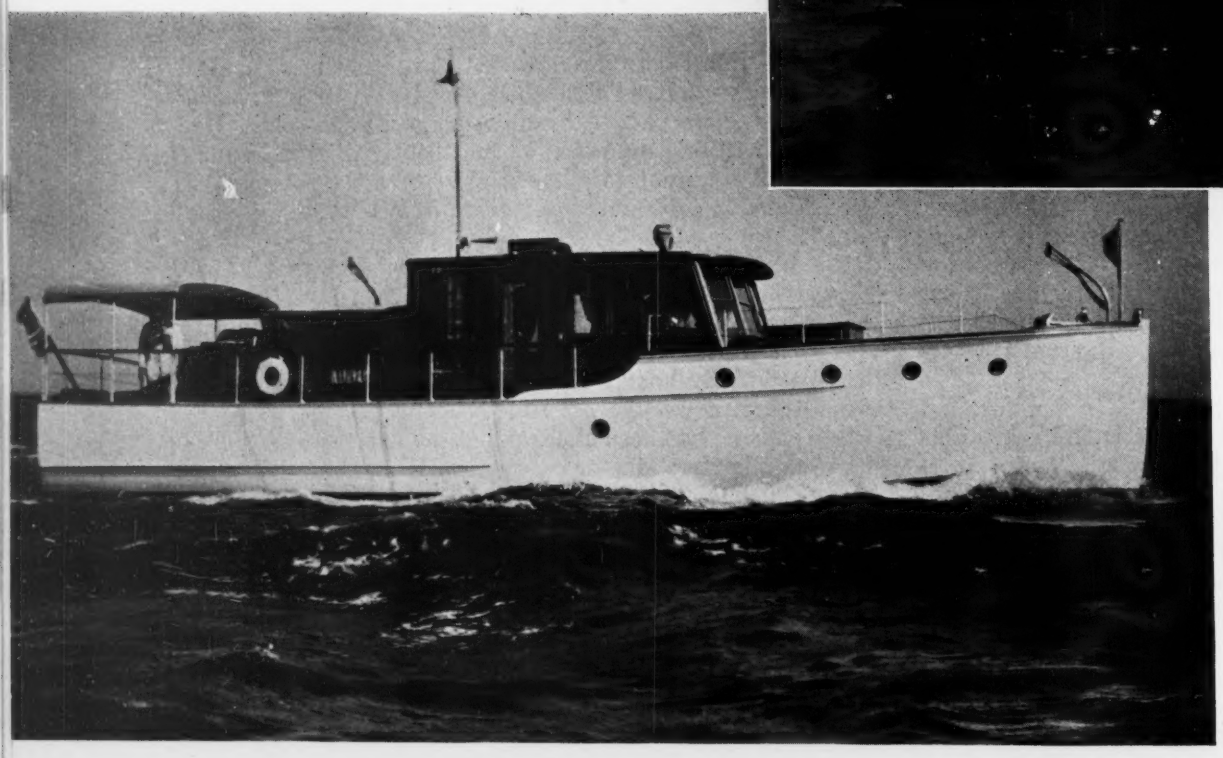
On *Wander Bird's* passage to Norway last summer she carved out 1806 miles in nine consecutive days, mostly under squaresail. Whereupon Warwick Tompkins reminded me by letter that I had said that if you would give me a small weatherly boat I'd do in three days what the *Bird* would do in a week. So the big schooner's genial skipper wrote that he had been chuckling at my expense ever since he turned in that nine days' wonder. Well, he and I take turns chuckling. On her westward passage the *Bird* took nine consecutive days to beat from Dover to Plymouth, a distance of about a hundred miles. If Tommy had had a small boat he could have taken her ashore and hitch-hiked it from Dover to Portsmouth in three days.

Right. The Matthews Sedan Cruiser shows a most attractive deckhouse and cockpit arrangement. Twin Kermath motors give a speed of 17 miles



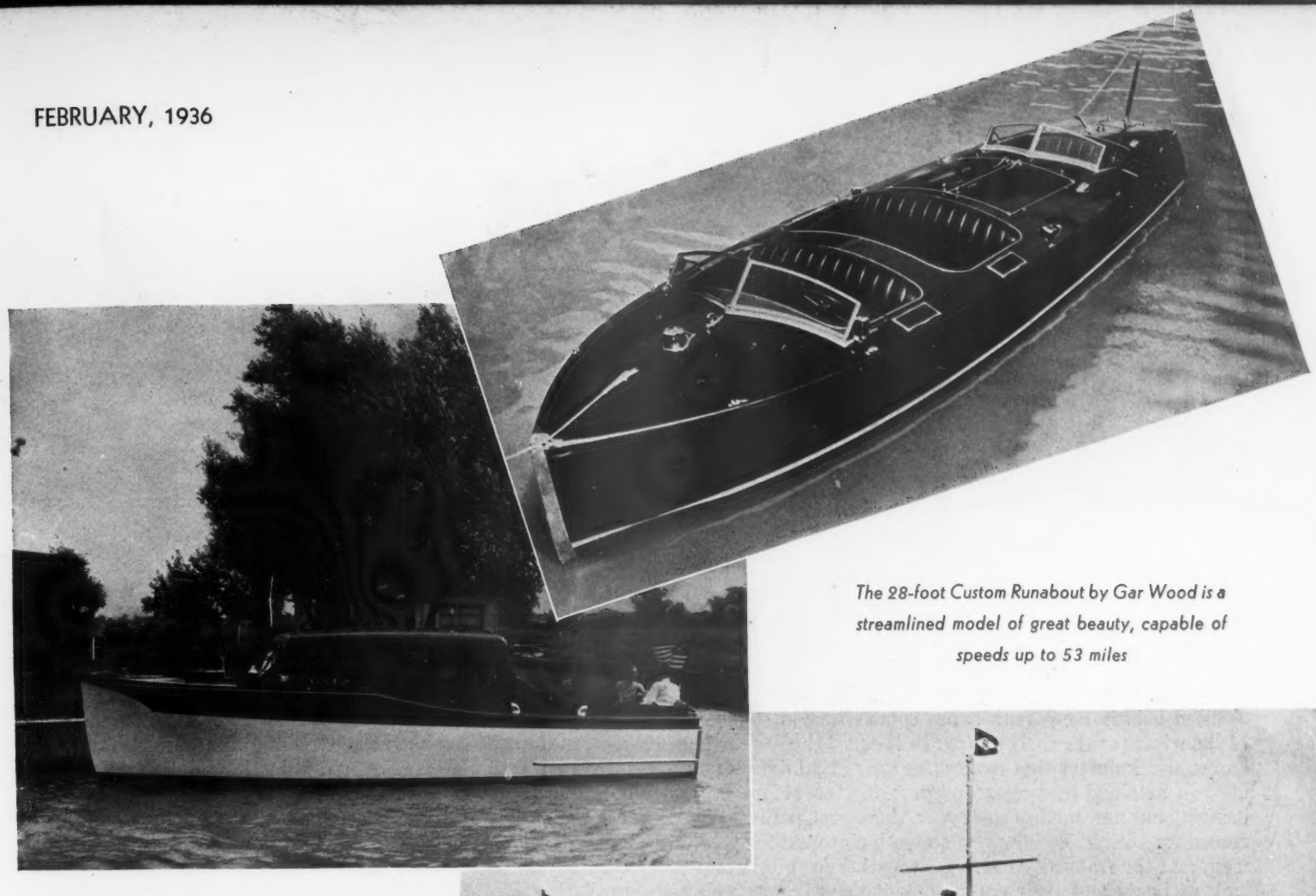
Left. For big game fishing, Consolidated built this cruiser for Gilbert J. Easton. Roomy and able, she steps along at 27 miles with a 250 hp. Speedway engine

Some New Boats For 1936



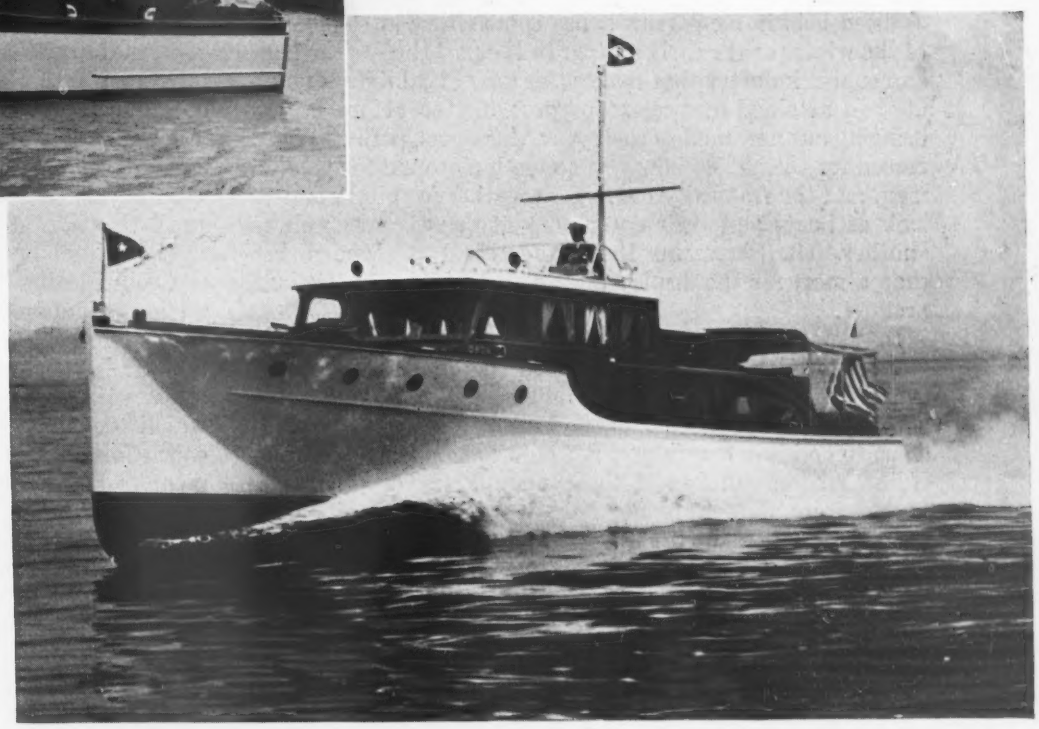
The new 26-foot Roamer model, introduced by a.c.f. at the Motor Boat Show, is a roomy little boat that does 17 miles with a Chrysler "Ace" marine engine

Left. For comfort afloat, this 46-footer by Vinyard offers all one could ask on this length. Sterling powered

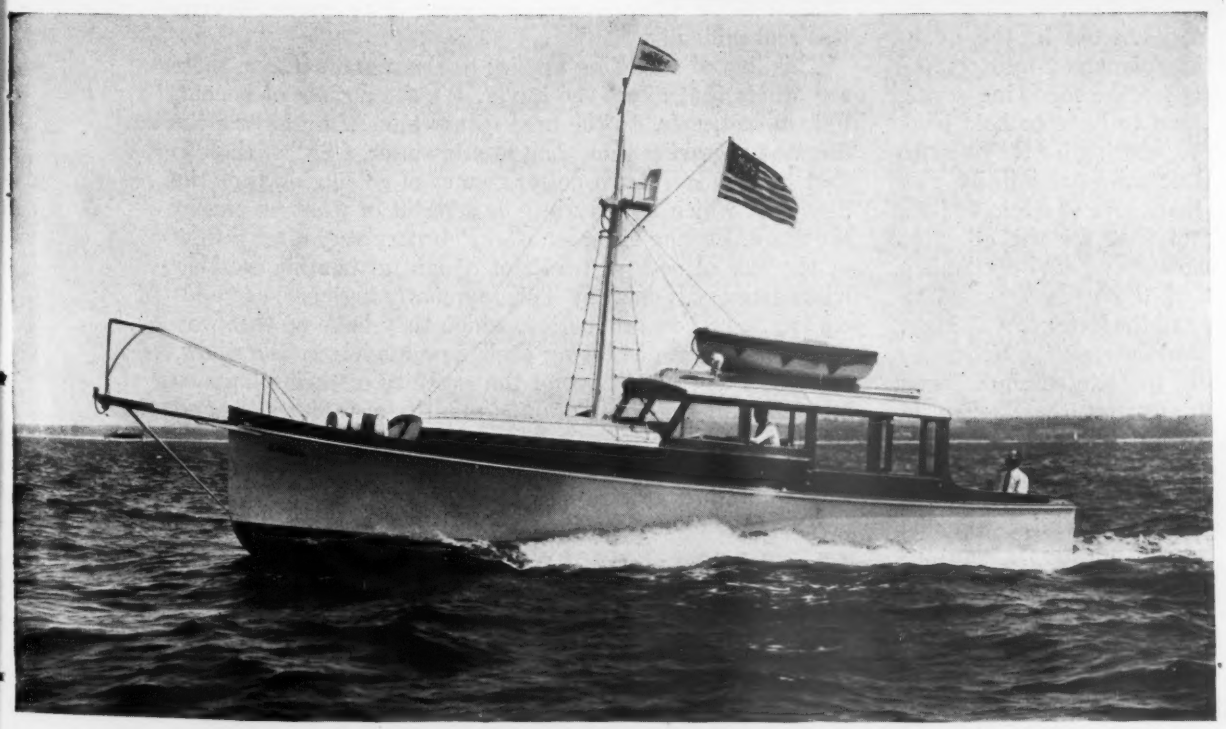


The 28-foot Custom Runabout by Gar Wood is a streamlined model of great beauty, capable of speeds up to 53 miles

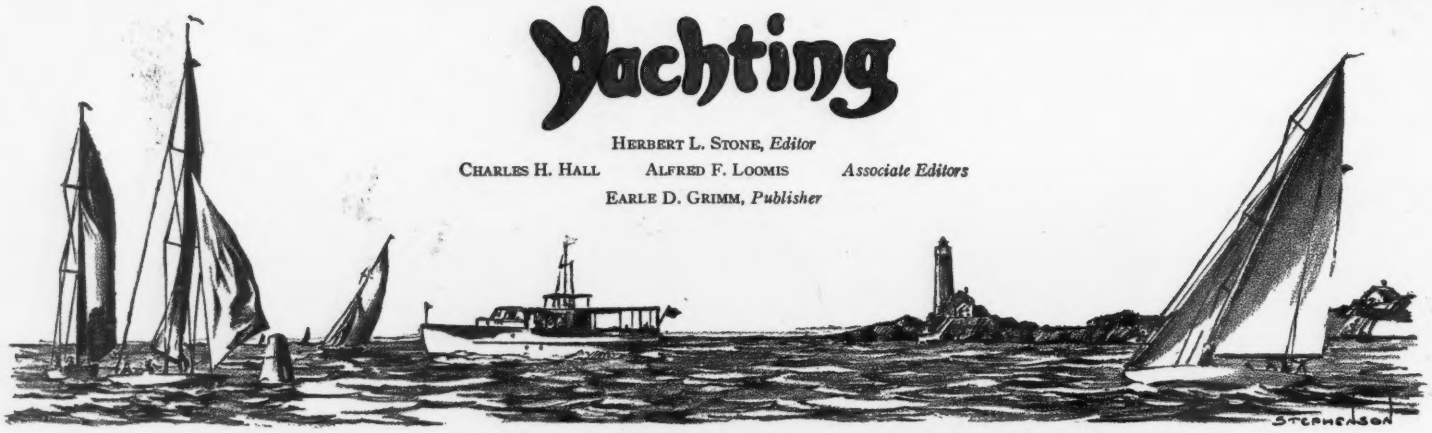
Chris-Craft presents at the Show a new line of Enclosed Bridge Streamline cruisers, of which this 28-footer is one, with a speed range of 14 to 21 m.p.h., depending on the power



Right. "Orca" is a 48-foot Dawn cruiser of unusual beauty of line. She is driven by twin Sterling Petrels



Left. Another fishing model is the 38-foot Elco Angler, equipped with pulpit, crow's nest, fish and bait wells, etc. Twin Elcos give a speed of 19 miles



EDITORIAL

Show Time?

IN THE thirty-one years that the Motor Boat Show has been held in New York it has come either in the middle of the winter or the early spring. In the past, before the boat and engine industry that makes this annual exhibition possible had attained its present proportions, or before it was bringing out new models each year, there was, perhaps, good reason for this. The Show was a meeting ground for yachtsmen, and the fraternity could get together for a talk and to look at boats and their equipment at one time as well as another. The Show was then educational in scope rather than a mart for the display and sale of a highly specialized product.

In view of the fact that the automobile industry has found it advisable to move forward the date of its annual exhibition of motor cars from midwinter to mid-November, it would be well, perhaps, for the Motor Boat Show management to consider carefully if it would not be to the interest of the greater number of those manufacturing boats and engines if its Show were also held in the autumn, as is now done by the British with their annual exhibition in London.

While no date that might be chosen would suit every exhibitor, there are many reasons why late November might be a better time for the showing of the new models of boats and engines than midwinter. Let us consider a few of them, bearing in mind that the building of boats on a production schedule entails many of the same problems met in the manufacture and marketing of automobiles.

With the building of boats and engines in the quantities that standardized production demands, most of the larger concerns have their models for the following spring ready by September or October, and to have to hold back these boats for four months or more, waiting for the Show to come along before realizing on their sales possibilities, is a considerable hardship. Also, as it takes several weeks to turn out the larger boats, the factor of time for the filling of orders received at a midwinter show may definitely limit a builder's production, with most of the work crowded in between, let us say, February first and the latter part of May.

A fall showing of new models would permit the builder to get his next year's models ready in the late summer, when work is normally slack, and actually test them afloat in order to make any changes that might be necessary. Also, it might make for increased sales as a boat owner is then usually a better "prospect" for a new boat, just after he has laid up his old one, than he might be in midwinter, when he figures that perhaps he can make the "old crate" do another season.

With new models ready and displayed in November there would be a selling season of at least six months, whereas now the season, at most, is of four months' duration. Anyone wanting a standardized boat is surely not going to buy one before he sees what is being offered at the Show. Another point in favor of a fall Show is that most builders have developed a market in Florida and the south for the winter yachting season, and to hold back the new models until this season is well under way means a distinct loss in the volume of business.

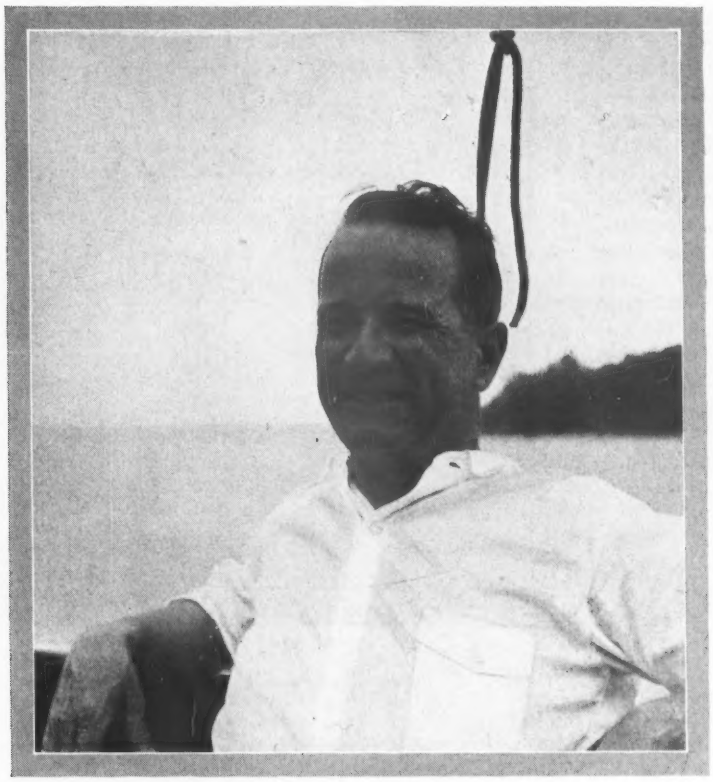
Economically, it would be beneficial both to the boat and engine manufacturers to "spread" their employment throughout the summer and fall in building new models for a fall Show, and through a longer winter period, doing away with some of the seasonal aspects of the industry which prevail at present. And if the building of the boats called for a wider "spread," the sale of engines and equipment to go in these boats would be "spread" correspondingly.

Still another reason that has a bearing on the situation is the weather. January is notoriously unpredictable in what it may hand out in this line, and a heavy fall of snow adds much to the difficulty of trucking or moving the heavy boats to and into the Grand Central Palace. In the past, boats have sometimes arrived days late, due to unfavorable weather conditions. Bad weather also has an unfavorable effect on the attendance. An earlier date would obviate this real difficulty.

This line of reasoning applies to the manufacturer; there are others that affect the buyer. We see no loss of benefit, but, in fact, gain, to the boat owner himself by having the Show at an earlier time than in midwinter. Chief of these is that he stands a much better chance of getting on time the new boat which he may buy as a result of what he sees at the Show. Placing his order after February very often results in the loss of several weeks of delightful boating weather when delivery is delayed. This frequently happens, as builders are rushed on production, which they have no sure way to gauge before displaying their new models at the Show, and are often taxed beyond the capacity of their plants to fill orders in the three or four months of late winter and spring.

Knowing yachtsmen and their psychology, we feel that they would just as soon look at and talk "boat" in November as in January or in June. All months are "in season" to a sailor. Anyway, there's a suggestion. Think it over.

IN THE WORLD OF YACHTING



ROBERT P. BENEDICT

OUT on the Great Lakes "Bob" Benedict is known as the man who holds a permanent mortgage on the Chicago-Mackinac Race. Once in a while someone forecloses on the mortgage and takes the Mackinac Trophy away from him, but no matter in what yacht he sails this classic event — or any other cruising race, for that matter — "Bob" is pretty sure to be "there or thereabouts" at the finish.

In answer to a questionnaire about his early history, "Bob" admits to having started his sailing where the Pilgrims landed, at Plymouth (which may account for his present intolerance in the matter of the Mackinac affair), but claims that up to the present he hasn't learned to sail, although he still has hopes.

Benedict is something of a horse trader when it comes to boats and he has owned a long list of them, whose names we can't remember. He will not enlighten us as to these because he says there were power boats among them, and he is making strenuous efforts right now to be known as a racing sailor. The first one we recall is the 50-foot yawl "Neoga," which he owned before and during the war. He remembers this boat well, he says, because he had to pay a luxury tax on her for one year, although he didn't see her once during that period, as he was overseas trying to make a flying machine skip for Uncle Sam, who then had some crazy idea of making the world safe for democracy. The only record he claims in that game was being the first to get back to the U. S. after it was over.

Then he owned the auxiliary schooner "Privateer" which he sailed until he wanted something larger, when he bought the schooner "Bagheera," also an auxiliary, mind you, and in her he won the Mackinac twice and finished second two or three times. Finally he sold her to someone who wanted to win the Mackinac. He owned last season the cutter "Valkyrie," in which he took second place in his favorite event, and now he is polishing up his latest acquisition, the 55-foot ketch "Vamare," for the next Mackinac and for cruising in the North Channel and Georgian Bay, for which he says he considers her a very safe boat.

"Bob" Benedict has been able to retain membership in the Chicago and Jackson Park Yacht Clubs and the Cruising Club of America. Occasionally he is seen here on the Coast.

What Our Readers Say

"Maud" Designed by Fife

Editor, YACHTING:

IN THE very interesting article on the Fastnet race in the October YACHTING is the following — "*Maud* is *the Maud*. Yes. She is no less a boat than Claud Worth's chef d'œuvre." Will you allow me to disclaim the undeserved credit of having designed this boat. She was designed by Fife and launched in 1899. I bought her some years later. She proved a very able sea boat and was faster than other small ketches of her day. I sold her twenty-seven years ago. Her sail plan has since been much reduced.

It was a sporting entry, but of course *Maud* had no chance in the Fastnet, being too small for a heavy weather race and having too little sail for light weather.

CLAUD WORTH

Falmouth, England

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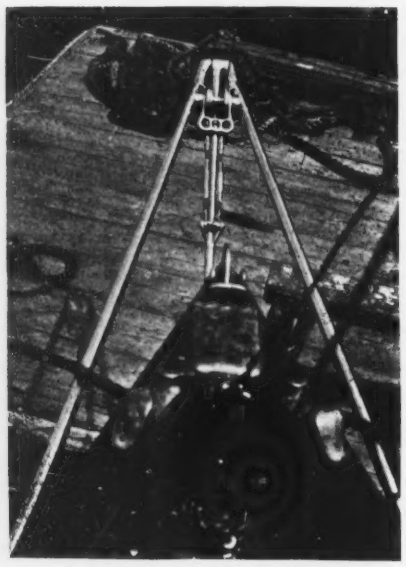
Likes Tripod Bowsprit

Editor, YACHTING:

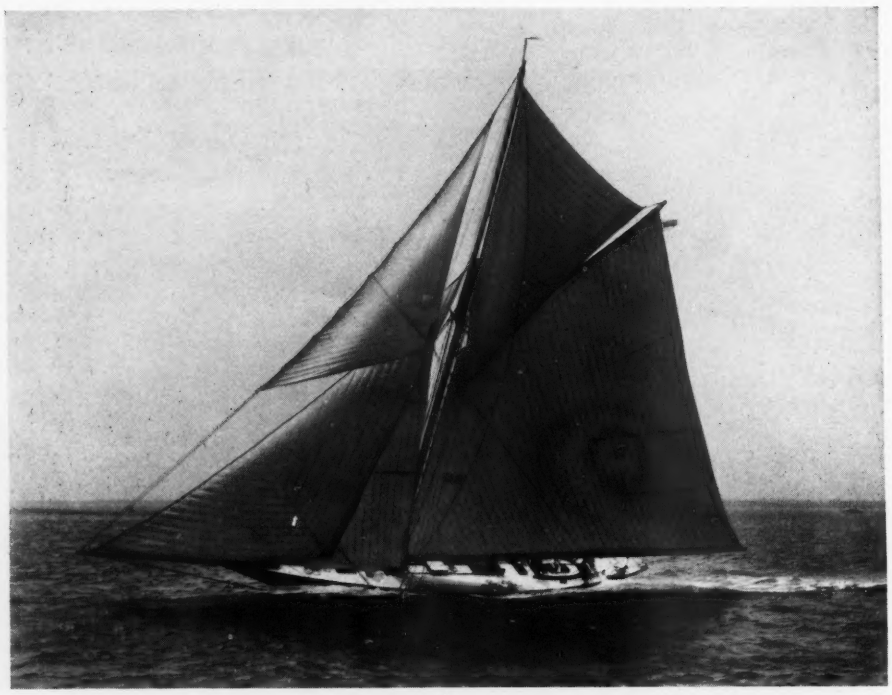
I WAS interested in the page of photographs of my brother's new flagship *Rubaiyat* in the November number of YACHTING. In the four formal races *Rubaiyat* sailed, she got the "breaks" by being off by herself making some clinical try-out experiments. Just out of the cradle, she was, however, strong enough to lift herself around the windward mark "by her own boot straps" when the wind vanished during the Fall Regatta. Her tripod bowsprit had folded up just after the start owing to soft metal instead of stainless steel being used. The jib topsail was quickly hooked onto the bow fittings and she pulled through in the light air without the bowsprit. But with a loose-footed mainsail, she needs it in a breeze. Ernest Ratsey was certainly right. Not knowing how much bowsprit *Rubaiyat* needed, if any, the tripod made it possible to increase or diminish the "lead" by substituting longer or shorter struts. It is very handy for working light sails and anchors. It is light and strong when made of proper metal. It leaves the bow fittings intact and can be quickly unshipped for cruising. It is hardly visible and does not alter the appearance of the hull outline. Having first tried it as an experiment, I would now use no other.

H. W. RUBINKAM

Chicago, Ill.



A close-up of "Rubaiyat's" tripod bowsprit



"Gloriana," Herreshoff's famous 46-foot cutter, which marked the beginning of a new era in yacht design when she came out in 1891

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That Sears Cup Race Decision

Editor, YACHTING:

I WAS much interested in reading in the October issue of YACHTING (Under the Lee of the Longboat), the account of how a race committee terminated a race in order to save an all-night drifting match.

This would seem to conflict with the decision made by the New York Yacht Club, in the case of *Vagrant* and Race Committee, arising out of the finish of the race of July 30th, 1921, off Block Island. The committee laid out the race to finish where Can Buoy "C" was supposed to be, as shown by the chart. As a matter of fact, no such buoy was there when the race committee reached that point. They decided, therefore, to make the finish at the bell buoy off the breakwater, and establish the finish line at that point. *Vagrant* appealed from the establishment of this finish line, and the club, on December 15th, sustained the appeal, holding that the race committee could not change the finish line, as they had done, and referring to Racing Rule XVI, which requires notice to the yachts.

GHERARDI DAVIS

New York, N. Y.

"Gloriana" and the Universal Rule

Editor, YACHTING:

MY FRIEND W. P. Stephens, dean and best known and loved of the world's yachting writers, recently showed me an article which he wrote in 1892 on the famous Herreshoff 46-foot cutter *Gloriana*. Possibly a comparison between her and a modern racing yacht designed to fit the Universal Rule may be of interest. A comparison is here presented on the double basis of the *Gloriana* against a yacht of her water line length, and one of her rating under the measurement rule.

All yachtsmen know that *Gloriana* marked the beginning of a new era in yacht design, but probably few realize how closely her model fits the present measurement rules. Perhaps the vast discrepancy between the sail areas carried by *Gloriana* and a modern yacht of her length is even more surprising than their similarity in hull proportions. The men who raced their yachts with the enormous sail plans of the "Gay Nineties" must have been skilful sailors, even if they did not indulge much in ocean racing. We think we have been bold in increasing the height of our sail plans, but the truth is that the mast of a modern 46-foot water line racing yacht would not reach to the top of *Gloriana's* club topsail. We have merely shortened the base line without increasing the height of our sails, and we provide very different spars and rigging for carrying them.

Experience has proved that under the Universal Rule it pays to take the limit of water line length allowed for the rating. That limit is given by: $L=1.08R+5$ where "L" is the water line length and "R" the rating length. A 46-foot water line yacht would fit a class of 38 feet rating. On the other hand, *Gloriana's* great sail area makes

her rate at 54.5 feet, for which 63.86 feet l.w.l. would be appropriate. In the following table *Gloriana* is compared with yachts of 38 and 54.5 feet rating length under the Universal Rule. How she would compare in speed with either yacht I do not venture to guess, although I invite the opinion of others.

Gloriana's attenuated forward overhang gave the impression of less quarter-beam length than the fuller-bowed modern yacht, but actually the ratios of quarter-beam length to water line length are about equal, the modern full bow being offset by a leaner stern than *Gloriana's*.

Gloriana had about 11 per cent more displacement, and 2.1 times more sail than the modern 46-foot water line yacht, but the modern yacht of her rating and sail area is 2.3 times heavier than she.

In conclusion, I ask the question: Where do we go from here? Are the measurement rules to be modified to permit even larger boats in proportion to their sail areas in 20 years from now, or have we reached the desirable limit in that direction?

	Gloriana	*Modern yacht* 38 Rating	54.5 Rating
Length over all, ft....	70.0	70.0	96.0
Length l.w.l., ft.....	45.25	46.0	63.9
Quarter-beam length, ft.....	42.5	42.8	58.7
Sail area, sq. ft.....	4100	1960	4100
Displacement, tons...	29.0	26.0	66.7
Rating length, ft.....	54.5	38.0	54.5
Beam, ft.....	13.0	12.0	16.5
Draft, ft.....	10.25	9.3	12.1

C. P. BURGESS

Bethesda, Md.

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Experience with the C. Q. R. Patent Anchor

Editor, YACHTING:

MR. BLANCHARD'S article in YACHTING for October, entitled "The Newest Thing in Anchors," has suggested to me that it might be of interest if I were to add my testimony concerning Mr. Taylor's new patent anchor. I have been personally acquainted with Mr. Taylor for many years, and, when I was in England in May, 1934, he gave me a reprint of his description of the new C.Q.R. patent anchor. Being impressed with its possibilities, especially for use with seaplanes, in which the saving of weight is of prime importance, I ordered one of the smallest size, the 24-pound anchor, last spring. It arrived in June, and, until I saw Mr. Blanchard's article, I supposed that mine was the first to be imported to this country. Apparently, he beat me by two months.

During the summer, I have used it a number of times for anchoring a seaplane, and found it, in general, very satisfactory. According to Mr. Taylor's tests, the 24-pound anchor should be equivalent in holding-power to a 50-pound kedge anchor. The severest tests to which I subjected it were the use of it for anchoring a Fairchild 6-place seaplane on a surveying trip to Northern Labrador in July and August. A plane of this size probably puts a pull on an anchor slightly greater than the average 18-foot water line knockabout, that is, in an ordinary breeze and in smooth water. On one occasion, we anchored in Shediac, New Brunswick, in a fairly fresh breeze, I should say between 15 and 18 miles an hour. The water was shallow — about 8 or 10 feet — and the bottom was mostly sandy. The anchor dug in quickly and seemed to hold firmly, judging by the feel of the rode and the promptness with which it stopped sternway in the wind. On another occasion, however, we used it in the harbor of Hebron, Northern Labrador, with less success. Here the bottom was hard and rocky and of very uneven contour. The water was only about 6 feet deep, so that we were able to give the anchor a good horizontal lead. The wind was moderate, about 12 miles, as nearly as I can judge, and yet the anchor failed to hold, dragging rapidly over the bottom, catching momentarily on ridges, but dragging on until someone came out with a larger anchor, which secured the plane. This was presumably the most adverse type of bottom for such an anchor. The bottom was probably too hard for the point of the plow to dig into. Such a bottom would of course be bad for any anchor, but, in a case like this, what helps most is weight. A 50-pound kedge anchor, even if unable actually to dig into the bottom, would probably have held the plane by virtue of its weight, which would have served to hold the fluke against some of the rock ridges.

Having usually been able to tie to moorings, I have used this anchor comparatively few times during the course of the summer, but this experience, as far as it goes, suggests the conclusion that, in any sort of bottom where it has a fair chance to dig in, the C.Q.R. anchor has all the merits which Mr. Taylor claims for it. On a bottom of rocks or hard, smooth, pebbly gravel, it may, on account of its lightness, fail to dig in properly, and then it no longer compares favorably with a heavier anchor of another type. This means that under certain conditions what is needed is weight rather than efficiency of design.

ALEXANDER FORBES

Boston, Mass.

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The British Frostbiters

Editor, YACHTING:

HAVING read in YACHTING Sam Wetherill's account of the Class B Frostbite racing at Larchmont, which ended in such a complete victory of your defenders, I thought that perhaps you might like to hear some of the details about the beaten boats and their rigs, and why they carried so much money and lost it.

Runt and *Squall*, the English challengers, were designed by Uffa Fox at Cowes, and were modeled very much on the lines of the International 14-Foot Dinghy in which Uffa excels. Their salient points are a full bow and long flat run, low freeboard and tumble home, and a maximum depth well forward of amidships. The American boats, on the other hand, have high freeboard, flare, fine bow and greatest displacement about amidships.

Similarly, the rigs used on either side were widely different. The Americans had the accepted wishbone rig, while the English boats had an invention of their own which got round the rule and looked like a winner. Mast height being limited to 17 feet 6 inches and jib-headed rig not being compulsory, we experimented with a gunter-lug rig of over 20-foot hoist which gave us so much more life that it was funny. With all that wood aloft we had to make the mast revolve, but we did not think we could dispense with standing rigging as the wishboners did. So we hung on to a forestay and a pair of shrouds well set back. As it turned out, the forestay stopped the mast revolving and the shrouds cut the sail. But so good was the tall rig that we tried another even taller, our "moonraker," with a 22 foot 6 inch luff and an aspect ration of 3.5:1. This was a flier in light airs when used with a loose-footed sail and a plain boom held down by a kicking strap. Wishbone booms were incompatible with standing rigging, and the Park Avenue boom was far too clumsy.

Well, we tried out our boats and rigs at Cowes, sometimes outside in the seaway off the Prince Consort Shoal and more often in smooth water up the river. And when we arrived in the United States we thought we were pretty hot. We prayed for a breeze, where our safety factor and stability might count. We got it. And we just wallowed and stopped. Frank Campbell and Clair Farrand went fizzing off over the horizon. And these were our conditions — windward work in a seaway!

The short slop in Long Island Sound was a revelation. It got us pitching end for end, and our tall spars made us worse. After a couple of days of that we were lost, and only in reaching and running could we put up any show at all. But when the wind lightened and the water went calm we found ourselves walking out ahead — until the slop got up again. Our full bows and the clumsiness of our high rig was our downfall, as was further proved by our racing after the series was over. For when we raced inside Larchmont Harbor in a breeze and smooth water, Colin Ratsey in *Runt* cleaned up.

Well, we have learned a lot and hope to come back for more. The racing was great and we had a marvelous time. We wish we had won the cup, if only to give you an excuse for coming over to race on our side.

REGINALD BENNETT

London

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A Hint to America's Cup Challengers

Editor, YACHTING:

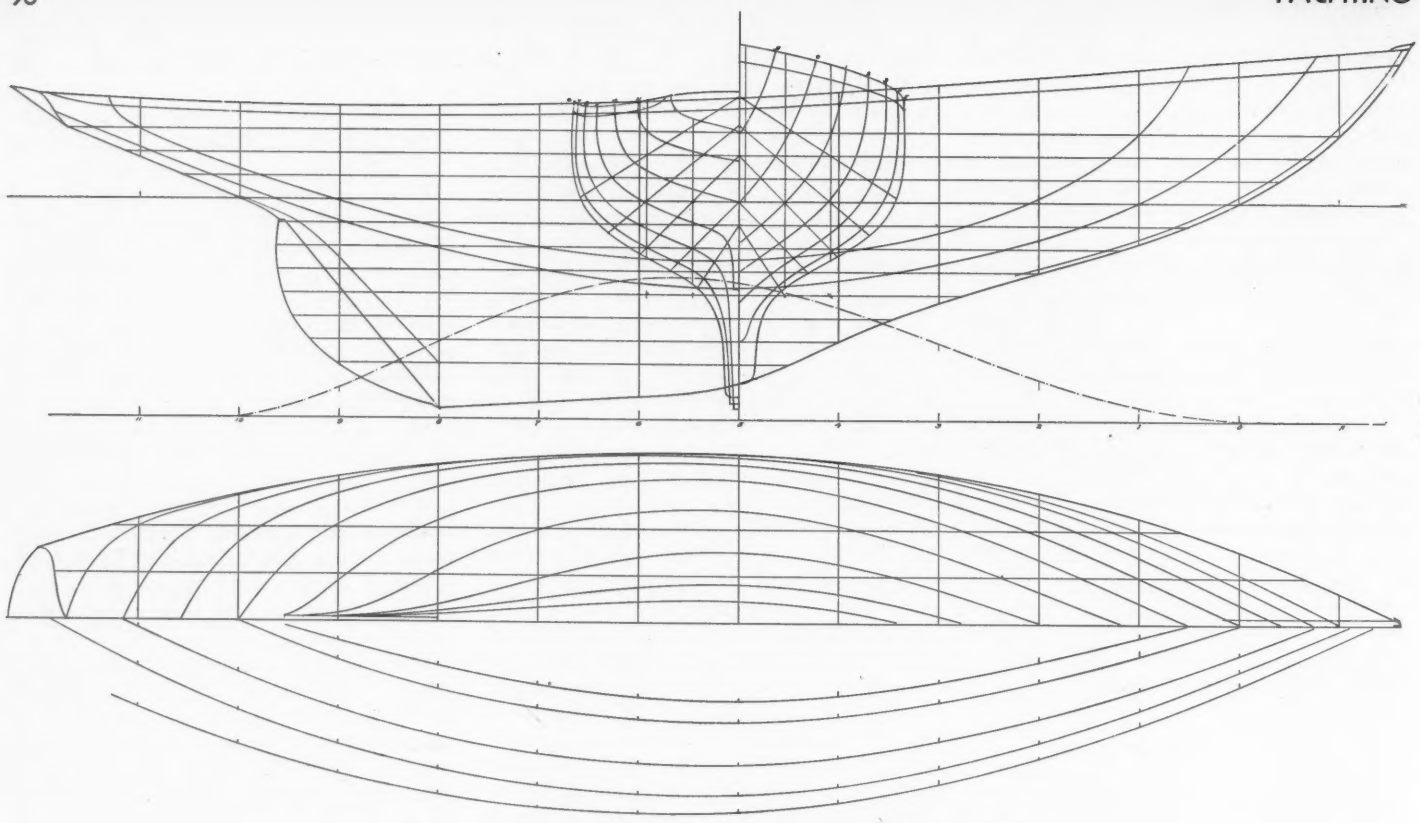
THE main reason why our British cousins have never yet been able to "lift" the America's Cup is that they have completely ignored one of Nelson's cardinal principles: "Our battle ground should be our practice ground," or words to that effect.

In other words, instead of galloping around the Solent next summer in a "J" boat, Sopwith (or Fairey) should acquire *Valiant* or *Avatar* and take a three-months' crack at *Prestige* and *Istalena* on Long Island Sound and Newport waters.

They would undoubtedly learn a lot.

HARRY MAXWELL

New York



The lines of the new cutter show a model that should be fast and able

A Cruising Cutter for New England Waters

THE accompanying plans are those of a cruising cutter designed by Charles D. Mower, naval architect associated with William M. Eldridge, Inc., of New York, for a Boston yachtsman who plans to use her along the New England coast this summer. She is designed to fit the rating rule of the Cruising Club of America as her owner expects to enter her in the more important long distance races. Her performance will be watched with interest.

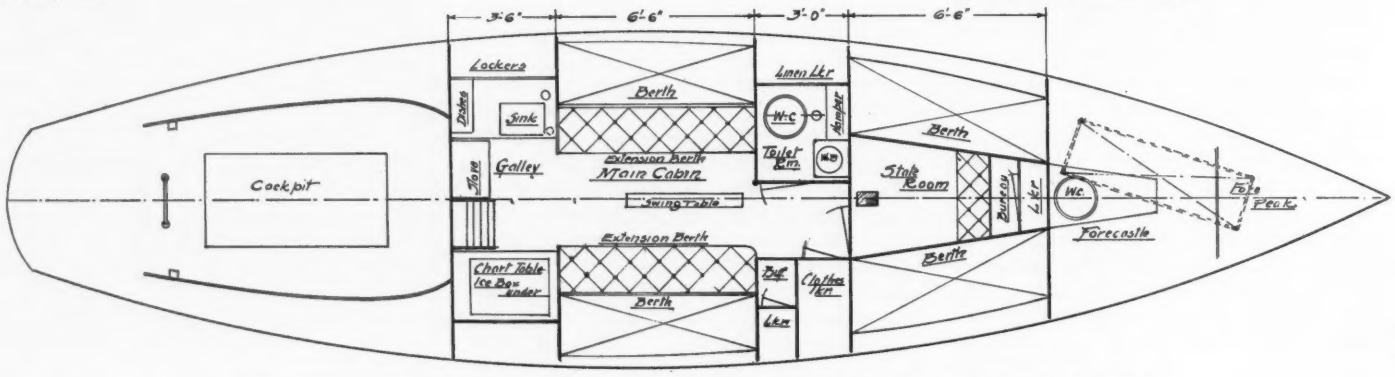
The plans show a wholesome boat with moderate overhangs, graceful sheer and easy lines which give promise of speed under all conditions. Her dimensions are: length over all, 45′ 0″; l.w.l., 32′ 6″; beam, extreme, 10′ 10″; draft, 6′ 6″. Her displacement is 24,000 pounds and her outside ballast, of lead, is 9,000 pounds.

Construction will be the best throughout, with mahogany planking, Everdur fastened to steam bent white oak frames, teak decks and deck joinerwork, etc.

Sail plan and (below) cabin plan

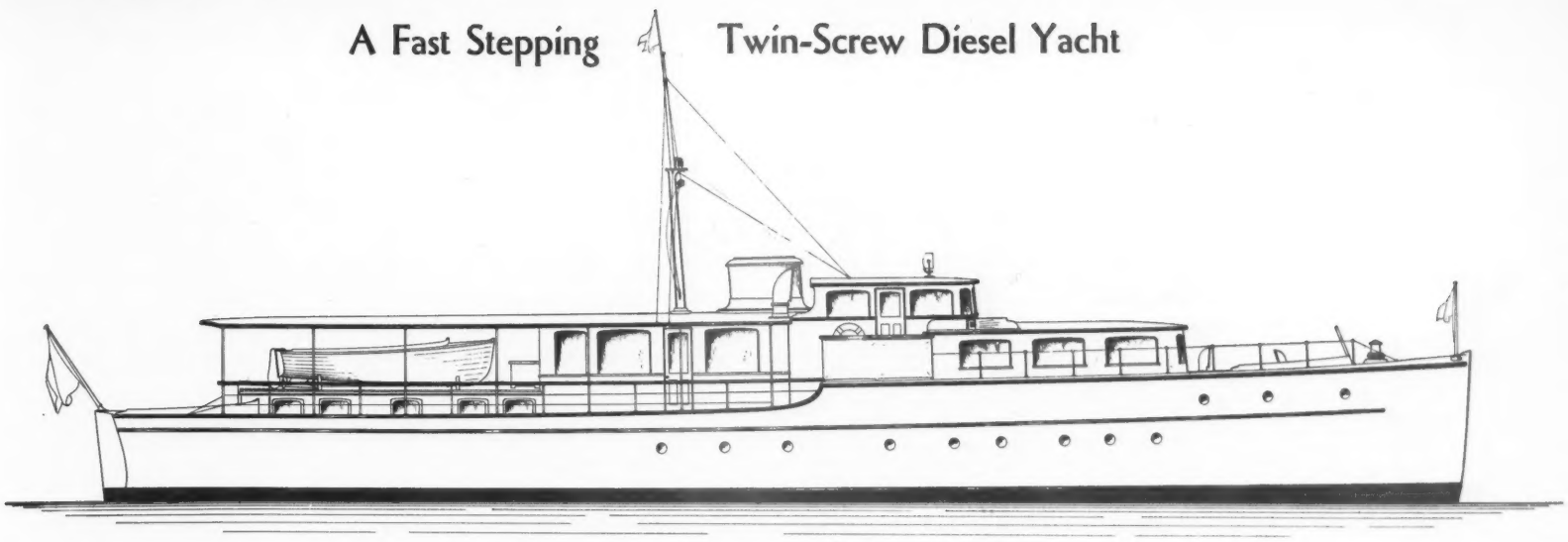
The sail plan shows a modern cutter rig rather short on the base line and with the sails well inboard. A permanent backstay leads from masthead to taffrail. The mainsail is loose-footed and a generous assortment of headsails will be provided to assure her performance in light going. Her total sail area is 725 square feet, 552 square feet in the mainsail and 173 in the jib.

The accommodations below deck are laid out with the galley aft, then the main cabin, with a built-in berth and an extension berth on each side so that separate berths for four are provided. A toilet room adjoins the cabin and further forward is the stateroom with two standing berths, a bureau and a clothes closet. A one-man forecastle is forward, with pipe berth, toilet, etc. In case no paid hand is carried, the forecastle will make a fine storage space for light sails, spare gear, extra ground tackle, and the many items which collect on a boat. The roomy cockpit is watertight and self-bailing.



The plans reproduced in this section are the property of the designers under whose names they appear. For further information concerning any design address the naval architect in question.

A Fast Stepping Twin-Screw Diesel Yacht



The outboard profile shows a yacht of pleasing appearance

THIS interesting fast cruiser is from the board of John H. Wells, naval architect of New York, and she has been designed for Josiah Kirby of that city. The yacht is planned for coastwise cruising and is arranged for occasional fishing trips. Her principal dimensions are as follows: Length over all, 88′ 6″; length on water line, 86′ 9″; beam, extreme, 16′ 0″; draft of water, 4′ 6″. The yacht is of the raised deck type, with a sunken deckhouse forward, abaft which is a pilot house and a deckhouse, followed by a trunk cabin. There is a cockpit forward, with a raking windshield and a comfortable cushioned seat wide enough for three. The sunken deckhouse is used as the dining saloon and is fitted with sideboard and china closet aft and a broad shelf forward. Steps lead down to the galley and the forward quarters and up to the pilot house. On each side of the pilot house is an open bridge. Next aft is a ladder to the engine room and space for the exhaust uptake.

The deckhouse is next aft and in it is the living room, with access from it to the forward stateroom and the after quarters. Abaft the cabin trunk is a cockpit, open overhead, fitted with bait well and fish box. A companionway leads down to the after staterooms.

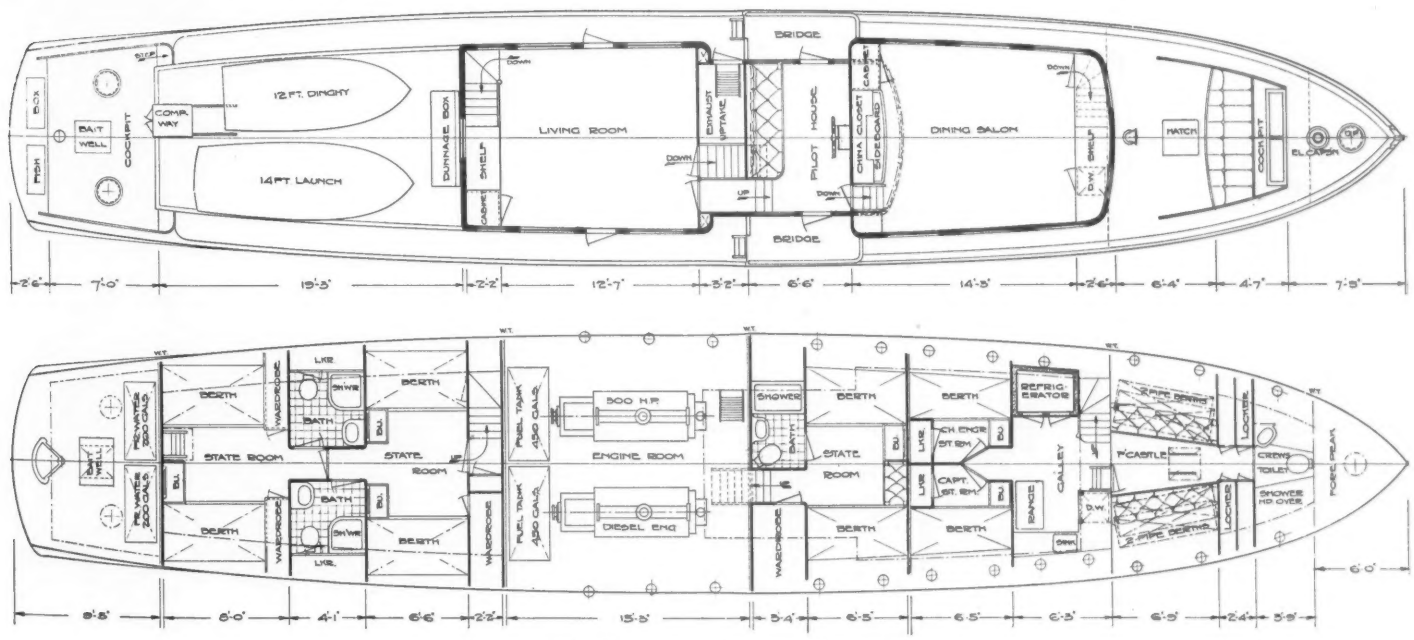
Below decks the arrangement plan shows a forecastle with berths for four men, lockers, and toilet room with shower bath. Next is the galley with range, electric refrigerator, etc., and a dumb waiter to the dining saloon. Abaft the galley are the staterooms for the captain and chief engineer. Abaft these and separated from them by a bulkhead is a double stateroom with a bath room adjoining.

The owner's quarters aft include two double staterooms, each the full width of the ship, and two bath rooms with showers. Each stateroom has a wide berth on each side outboard, bureaus and wardrobes. From the forward one steps lead up to the living room in the deckhouse. It is possible to go from one end of the yacht to the other without going outdoors.

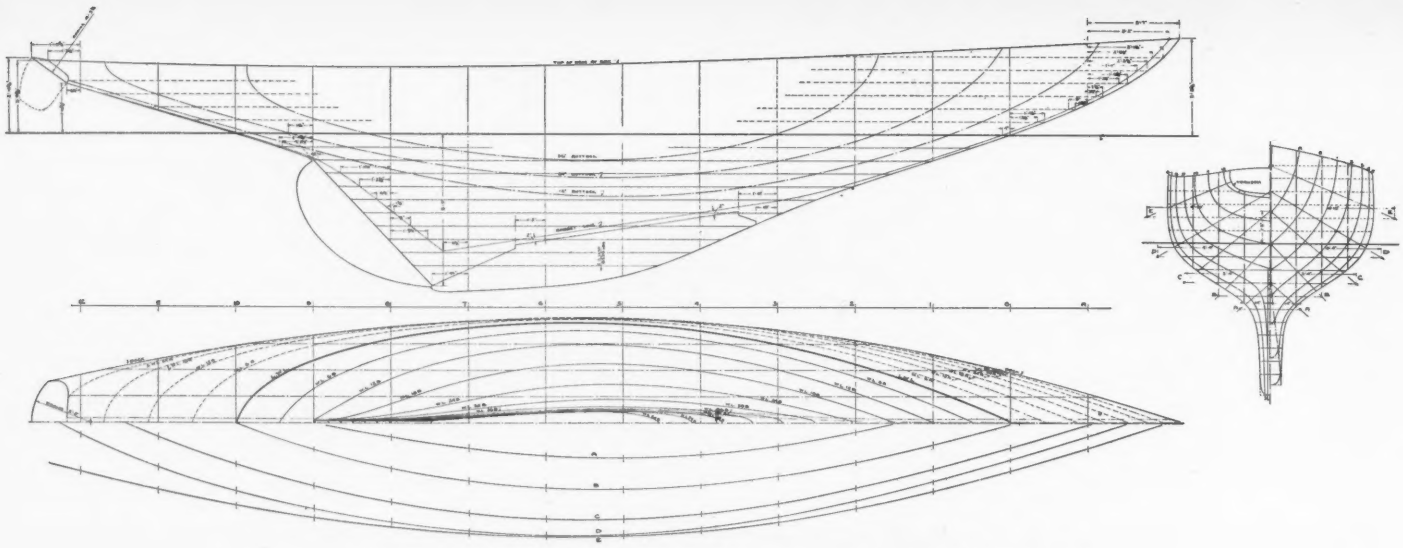
The engine room is amidships and it houses a pair of 12-cylinder V-type Winton-Diesels which develop 300 horse power each. Here, also, are the auxiliaries and two fuel oil tanks, each with a capacity of 450 gallons. The engine room is over 15′ long so that there is plenty of room to get around the main engines and auxiliaries. The exhaust is carried up the stack. The yacht's designed speed is 18 miles an hour.

A 14′ power launch and a 12′ dinghy are carried on chocks on top of the trunk cabin aft. These are swung out by means of brackets attached to the awning stanchions, thus doing away with the conventional boat davits.

The yacht's construction is of the best, with oak framing and outside planking double, of cedar and mahogany. The main deck is of teak, as are the deckhouses and trunk, rail, and deck trim. Tops of houses are canvas covered. The finish below is paint with a small amount of varnished hardwood in the owner's quarters to give a pleasing touch of color.



Deck and cabin plans of the new Wells cruiser

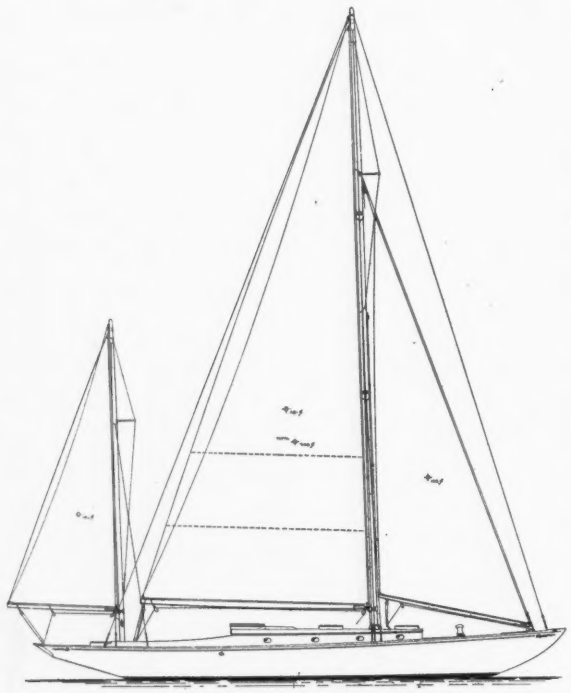


The lines show a boat that should be easily driven and move fast even with a small rig

An Attractive Cruising Yawl by Alden

THE yacht shown on this page is, as far as we know, the first of the 1936 fleet to take the water. She is from the board of John G. Alden, of Boston, and is for Charles A. Goodwin, of Hartford, Conn. The yacht has been built by the Herreshoff Manufacturing Company, of Bristol, R. I., and was launched early in January.

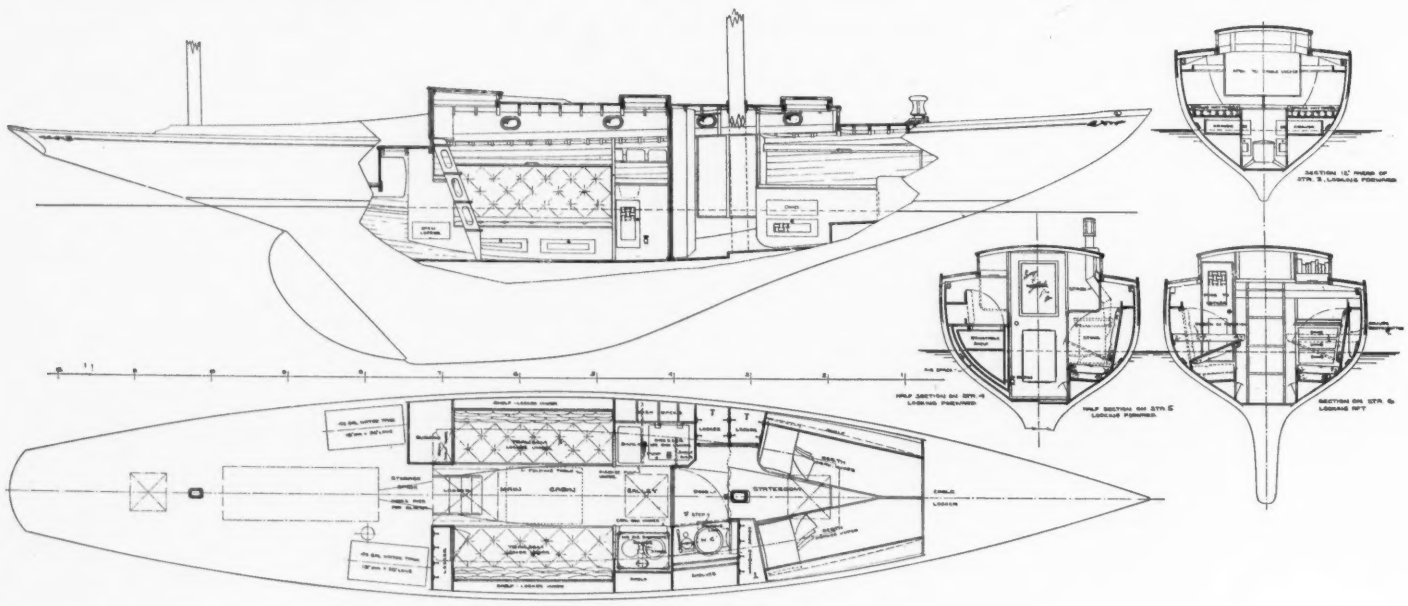
In outlining his requirements to the designer, Mr. Goodwin stated that he wished a boat that could be easily driven by a small rig, one that could be handled by the owner and his wife without a paid hand and yet be a fast sailer, especially to windward in rough water. The beam, therefore, was kept down and the rig made small. The principal dimensions are: Length over all, 44′ 6″; length on water line, 30′; beam, 8′; draft, 6′. The lines are easy and the displacement moderate. The lead keel weighs 8,500 pounds. Sail area is 746 square feet and the rig is short on the base line and fairly lofty, yet the largest sail has but 451 square feet of canvas.

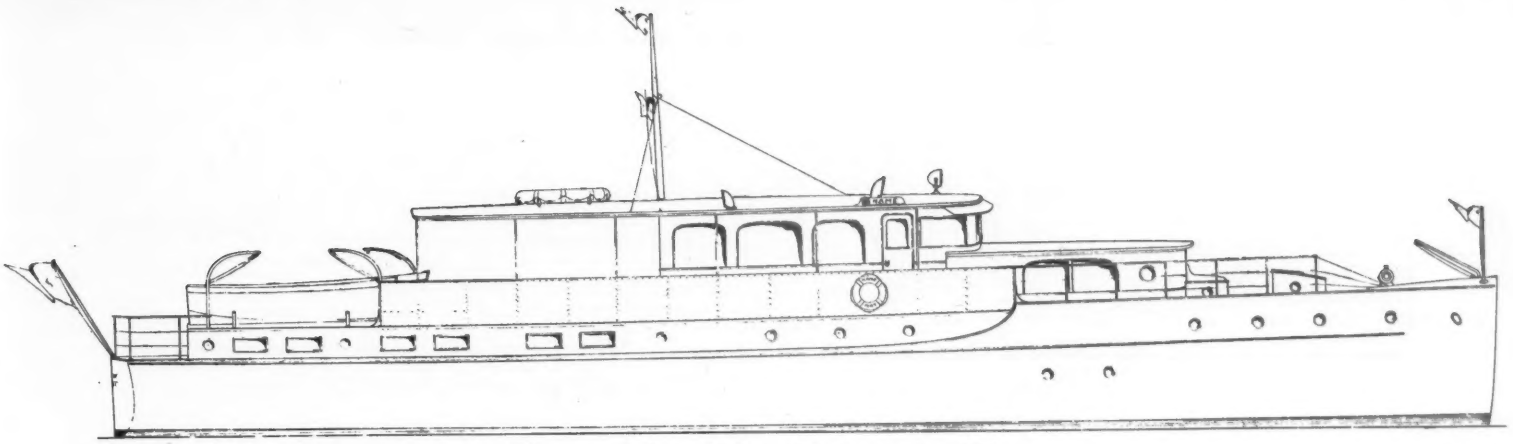


Sail plan and (below) accommodation plan and sections

Construction is high grade, with double planking of mahogany, and decks of teak, hollow spars, and Ratsey sails. The cabin trunk is long and fairly low and the cockpit is also long. Below deck, there is a double stateroom forward with a hatch over it and a toilet room separated from it by a curtain. Next aft is the galley, with Shipmate range to starboard and sink, dresser, ice box and dish racks to port. A hatch overhead assures light and air. The main cabin has a transom each side and a bureau and wardrobe. Under the bridge deck is a large locker for oilskins, etc. Two 40-gallon fresh water tanks are installed outboard.

The yacht will be used at Fisher's Island, N. Y., and with her small sail plan she should be easy to handle. The yawl rig was selected for its handiness. She balances under jib and mizzen.





The new yacht has a fairly straight sheer and a rakish appearance

A Twin-Screw Cruiser, Diesel Driven

THE interesting yacht, the plans of which are shown on this page, is from the board of Henry C. Grebe & Company, naval architects of Chicago, Ill., for a client in that city. She was designed to furnish spacious accommodations without sacrificing any seagoing ability. While the over all height above the water line has been kept comparatively low, the yacht has the advantage of having the lounging deck, pilot house and deck saloon all on the same level. With her raised forecastle and fairly straight sheer line, and with the houses stepped back so that there is no abrupt change in apparent height, the yacht is attractive in appearance.

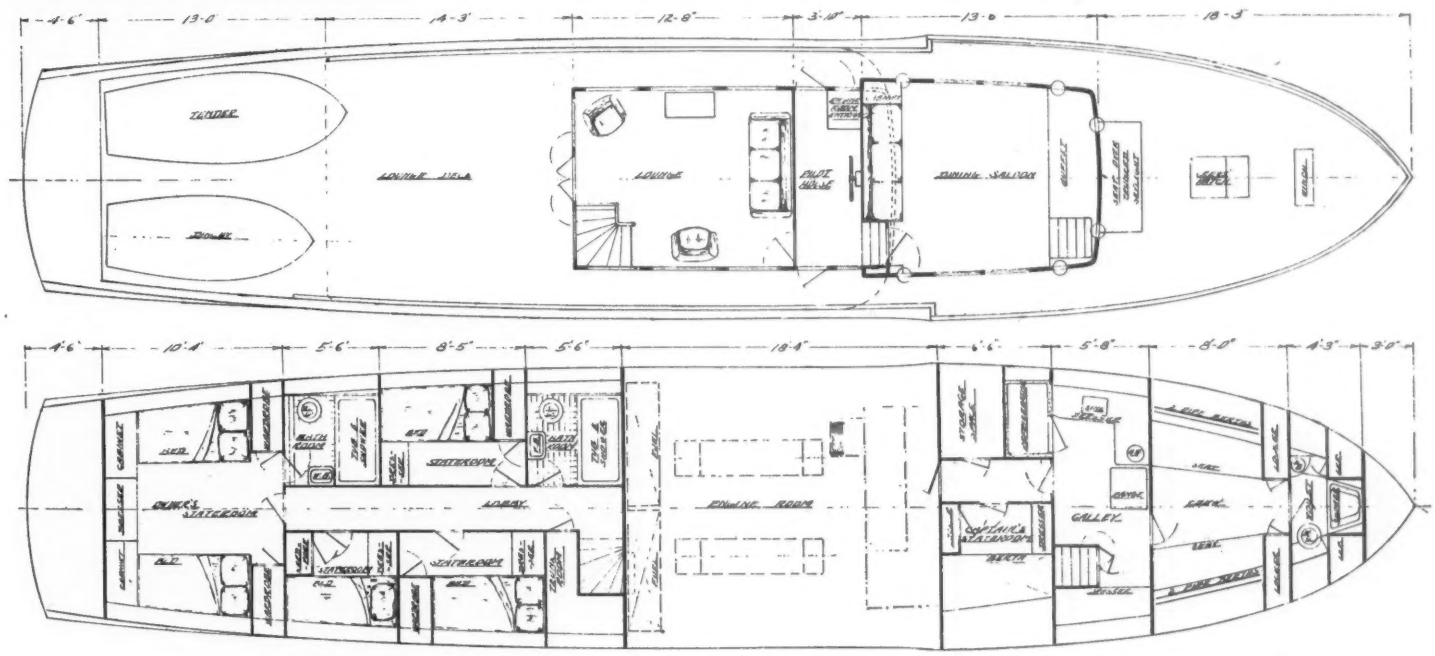
Her principal dimensions are as follows: Length over all, 80′ 0″; beam, extreme, 16′ 0″; draft of water, 4′ 6″. Construction is fairly heavy, with single planked hull, Everdur fastened, teak deck and houses. Abaft the break of the forecastle the cabin trunk is carried almost out to the side of the hull, giving a wide unbroken deck through the midships portion of the yacht. Outboard is a rail, with weathercloth, extending aft to the boats, which are carried well aft where they can be launched readily. The extreme after deck is short, allowing just room enough to handle lines efficiently.

The sunken deckhouse forward contains the dining saloon which has a buffet forward and a cushioned seat aft. Steps lead down to the galley. The forward part of the main deckhouse is the pilot house and the after part the lounge, from which stairs lead to the after quarters. The roof of the deckhouse is extended over the deck abaft the house. A 14′ power tender and a 12′ dinghy are carried in chocks aft.

Below, the crew are berthed forward. In the eyes of the ship is a bathroom abaft which is the forecastle which is fitted with pipe berths for four men. Next is the galley, extending the full width of the vessel, and abaft the galley are the captain's stateroom, on the starboard side, and a store room opposite.

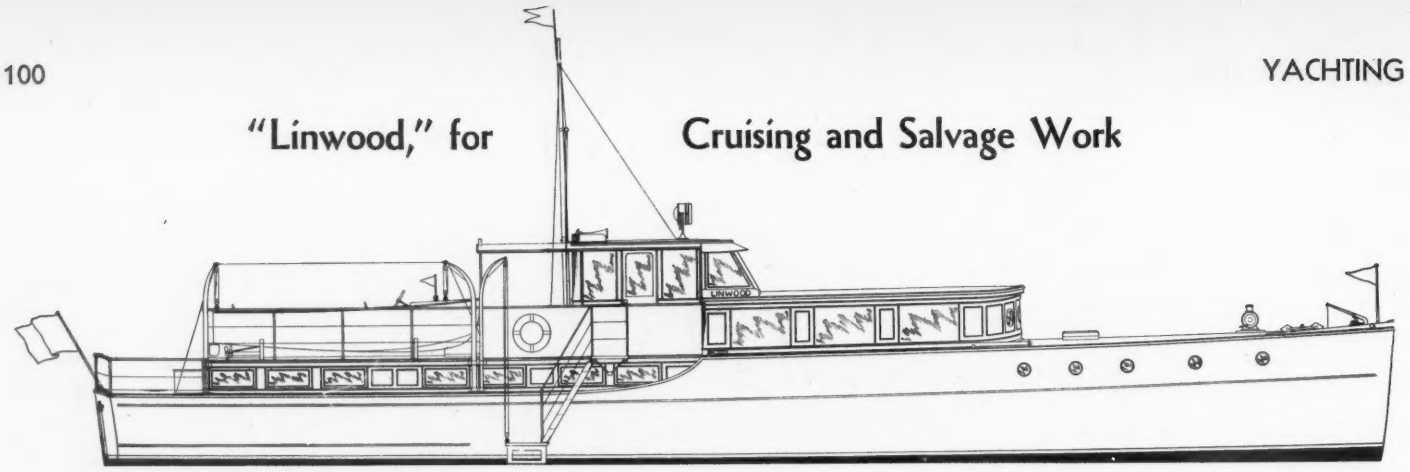
The owner's quarters aft include four staterooms and two bathrooms. The owner's room is aft, with a wide berth each side and a private bathroom just forward of it. On the port side is a stateroom and forward of it another bathroom. On the starboard side are two guests' staterooms, while alongside the stairs to the deckhouse is a large trunk room so that the staterooms need not be cluttered up with baggage. The owner's stateroom is provided with a bureau, cabinets and wardrobes and each of the guests' staterooms has a bureau and a full height hanging locker.

The engine room is amidships. It houses a pair of Diesel engines of the latest type and the usual assortment of auxiliary machinery. The engine room is entered from the passageway abaft the galley, and also from a hatch in the pilot house. There is ample headroom over the greater part of the machinery compartment. The yacht's designed speed is 18 miles per hour. Her fuel capacity is 1000 gallons, and the fresh water tanks hold about 800 gallons.



Carrying the top of the cabin trunk almost out to the sides of the hull gives a broad expanse of deck and additional room below

"Linwood," for Cruising and Salvage Work



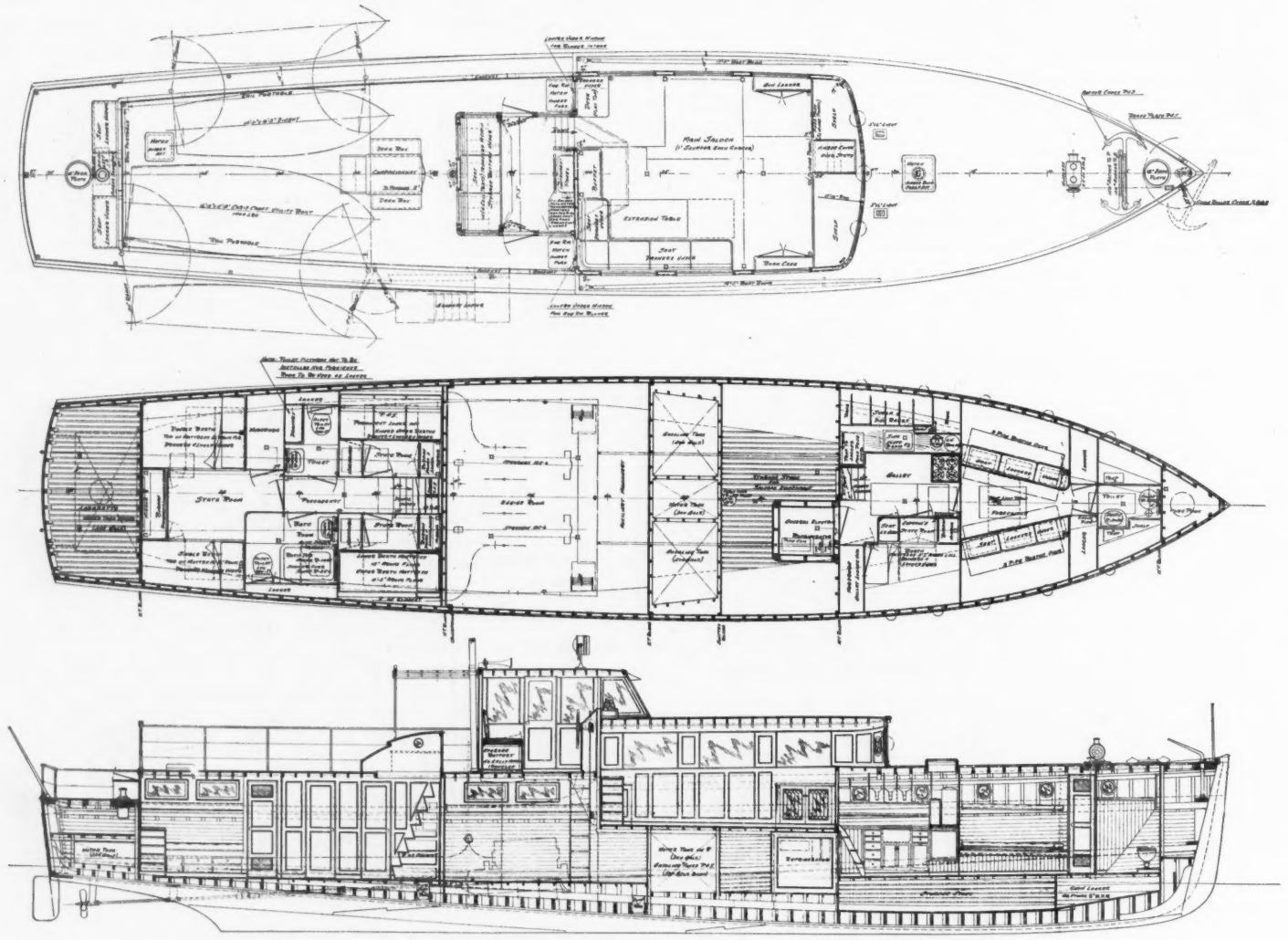
"Linwood" is a smart looking cruiser and modern in profile

THIS motor yacht was designed for J. Rupert Schalk, of Rhinebeck, N. Y., by Sparkman & Stephens, Inc., of New York, and is now under construction at the yard of the Consolidated Shipbuilding Corporation, Morris Heights, New York City. Her home port will be Poughkeepsie, N. Y., though it is expected that she will spend a large part of the season on the waters of Lake Champlain, where her owner has been engaged in salvage operations for the last two summers. In 1935 he succeeded in raising the Revolutionary gunboat *Philadelphia*, one of Benedict Arnold's fleet, from the waters near Valcour Island where she had lain on the bottom since 1776. The new boat was planned to provide accommodations for a party of from four to six in the afterguard and four or five additional men forward during salvage work.

The hull is built with white oak keel and framing and teak deck. The outside planking, 1½" total thickness, is double, of cedar and mahogany, Everdur fastened. Deckhouses, trunk, rail and deck joinerwork are of mahogany. All fittings are chromium plated.

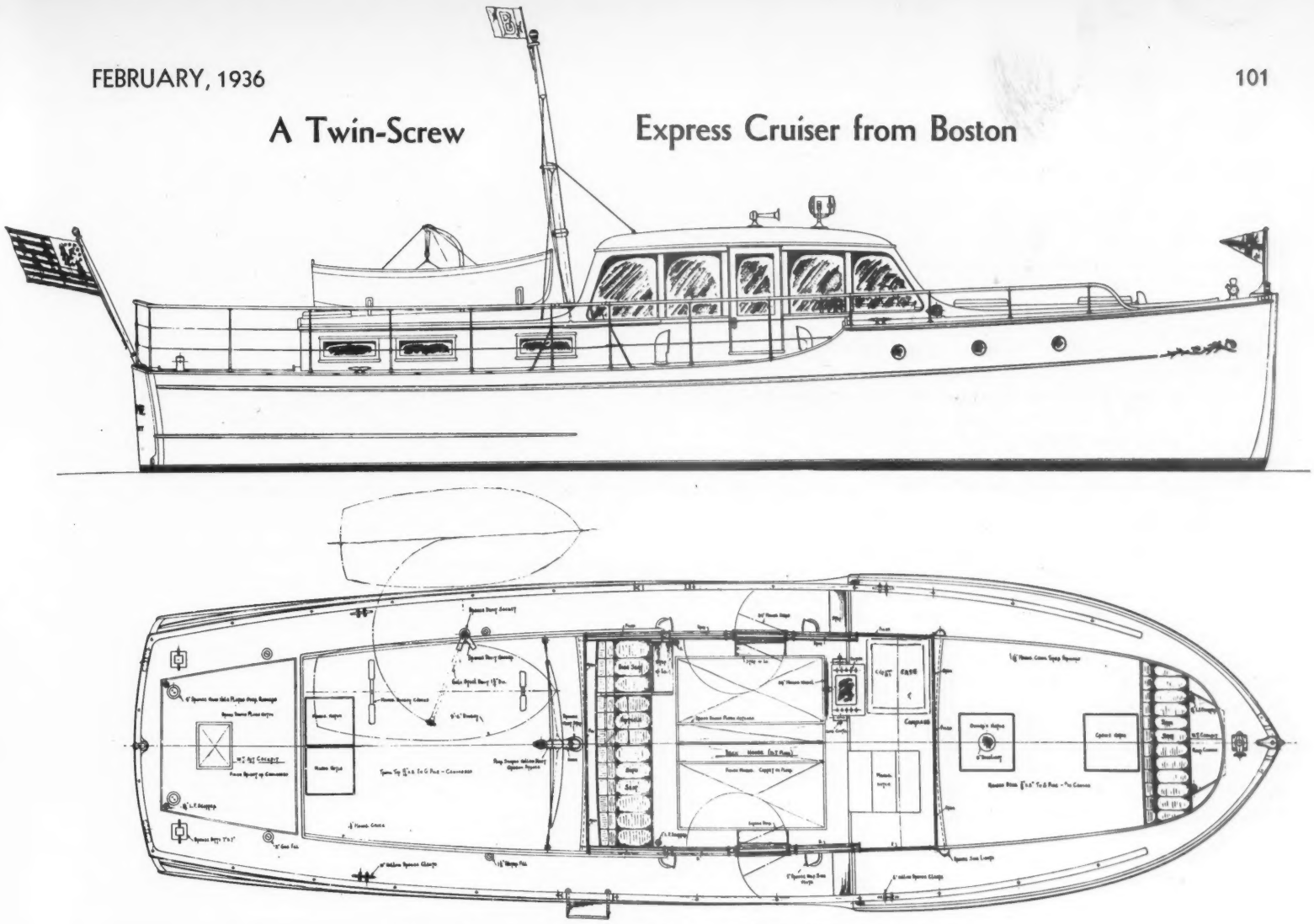
The main saloon, in the sunken deckhouse, is roomy and comfortable and the pilot house, just abaft it, is snug and well equipped. Below, there is a forecastle for four men, a large galley extending clear across the yacht, and a capacious hold for diving gear and salvage equipment. Aft, there are three staterooms, two with upper and lower berths and one with a double and a single berth. There is a bathroom to starboard and a lavatory to port.

The machinery compartment is amidships and here are installed a pair of 6-cylinder Model MC6 Speedway engines developing 250 horse power each and driving the yacht between 17 and 18 miles per hour. Her equipment is complete and includes a 5kw. Universal generating set, an electric refrigerator, an electric windlass forward and an electric capstan aft. A forced ventilation system for all parts of the yacht is provided. For small boats, a 16′ Chris-Craft Utility launch and a 14′ dinghy are carried. The yacht is scheduled for delivery in the early spring.



Deck and cabin plans and inboard profile of the new Sparkman and Stephens 77-footer

A Twin-Screw Express Cruiser from Boston



Outboard profile and deck plan of the new Eldredge-McInnis express cruiser

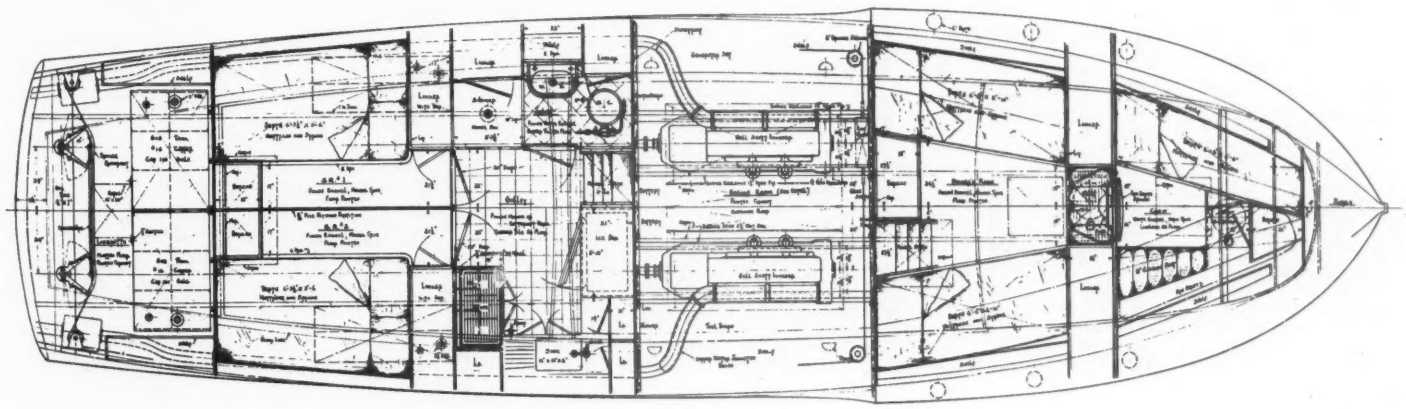
THE boat shown on this page is from the board of Eldredge-McInnis, Inc., and is now under construction at Graves' yard in Marblehead, Mass. Her owner is N. J. Bentley of Boston. The new boat is 45′ 3″ in length over all, 44′ 4″ on the water line, 12′ 6″ beam and 3′ draft. Keel, frames and deck beams are of oak and the outside planking is of Philippine mahogany. The deck is of pine, canvas covered, and the house and deck joinerwork are of Philippine mahogany. She is a round bilged boat, with a nicely worked out flare forward and a long, clean run. Hull fastenings are all of bronze.

While there is nothing radical about her plans, the deckhouse, with its well crowned top and raking ends, gives her a distinctly modern appearance. In this house are installed the steering wheel and all engine controls, chart table and comfortable seats. Large flush hatches give access to the engine room.

Below, there are quarters forward for two men, with toilet room and lockers. Next aft is the owner's stateroom with bureau, lockers, two wide berths and a toilet concealed under a cushioned seat. The engine room is amidships and abaft it is a large galley with the usual equipment, and a toilet room fitted with a shower. Next aft are two staterooms, each with a berth wide enough to accommodate two persons. These rooms have each a bureau and a hanging locker. Both forward and after quarters may be reached from the deckhouse without going outside.

The power plant is housed amidships and consists of a pair of 6-cylinder Hall-Scott Invader engines each developing 250 horse power and driving twin propellers direct. There is a generating set, a radio, a fire extinguishing system and other up-to-date equipment. The fuel supply, 320 gallons, enough to give a cruising radius of more than 300 miles, is carried in tanks under the after cockpit. Fresh water is carried in tanks partly under the berths in the after stateroom.

The signal mast is hinged and the dinghy, stowed on top of the cabin trunk, is handled by a single davit on the port side.



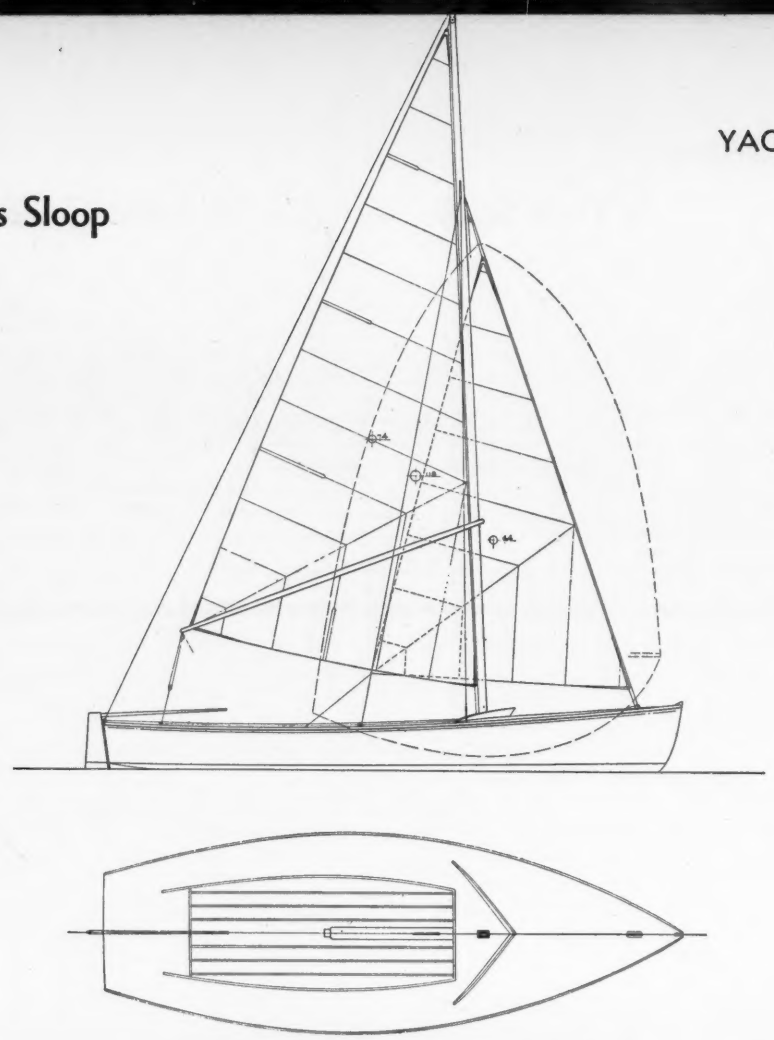
The cabin plan shows a well worked out arrangement of quarters

The "Bantam" One-Design Class Sloop

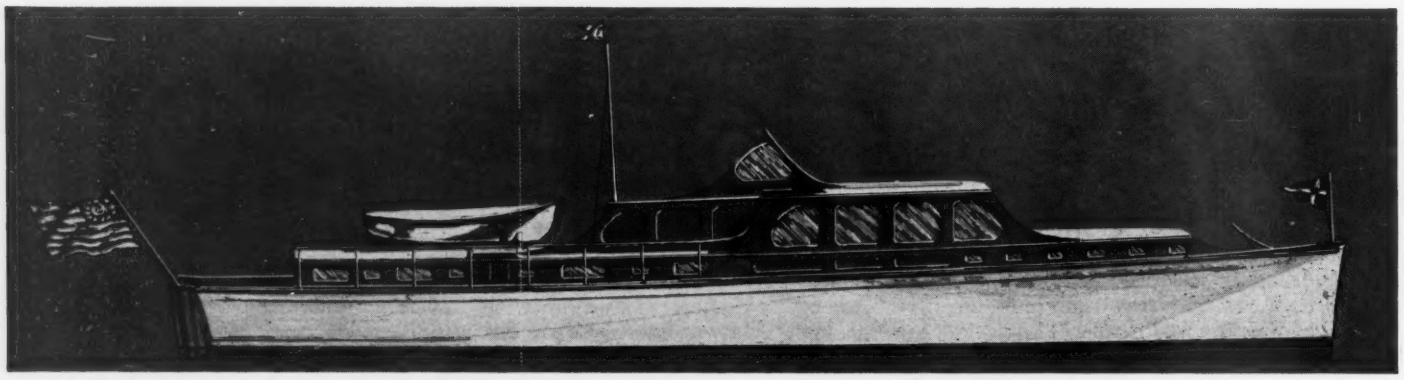
THE Indian Harbor Yacht Club has adopted this class and a number of these snappy little boats are under construction by W. J. H. Dyer at The Anchorage, Providence, R. I. The boats are from the board of Philip L. Rhodes, associated with Cox & Stevens, naval architects of New York. They are unballasted centerboarders of comparatively light displacement and are 16′ 6″ in length over all, 5′ 7″ beam and 6½″ draft of hull. With the board down, the draft is 4′. They are planked with Philippine mahogany and the centerboard is of the same material. The rudder is of the drop pattern and is built of metal.

The sail area is 118 square feet, 74 feet in the mainsail and 44 in the jib. A parachute spinnaker of generous dimensions is also carried. The mast is hollow and streamlined and the wishbone boom is built of duralumin. Standing rigging is of stainless steel wire rope. The cockpit is roomy and the boats will race with crews of two.

Among the owners reported as having ordered boats are Commodore Clifford D. Mallory, Kingsley Kunhardt and George Lauder. It is expected that other yacht clubs will be interested in these trim racing craft. The "Bantams" should be attractive boats for day sailing as well as for racing.



The sail plan is modern in every particular



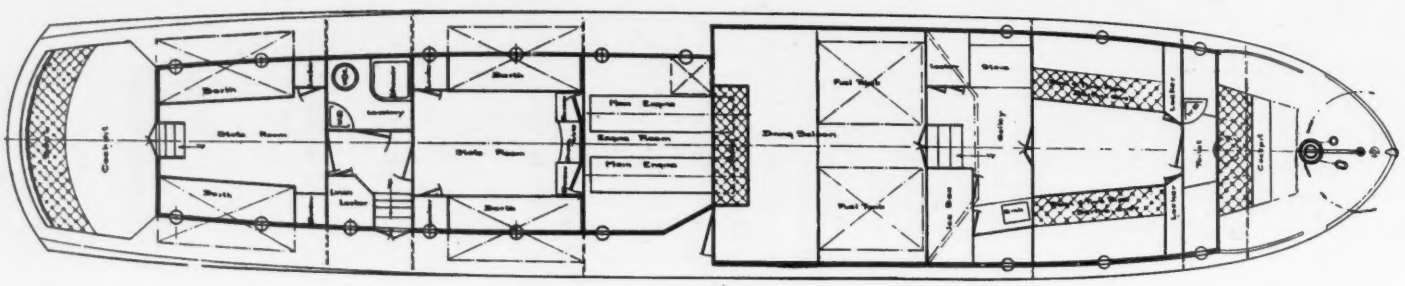
The graceful sheer and the raking house fronts and windshields suggest speed

A 65-foot Express Cruiser, Diesel Powered

THIS modern motor yacht was designed by Masterson & Schlegel, naval architects of New York. Her dimensions are as follows: length over all, 65′ 0″; beam, extreme, 12′ 6″; draft, 3′ 6″. The hull will be double planked, of mahogany, the deck of teak and the houses and deck trim of mahogany. The long, low trunks and the house with its raking ends give the yacht an appearance of speediness which she should live up to in performance.

She will be powered with a pair of 6-cylinder Diesel engines developing 175 hp. each and her designed speed is 20 miles per hour.

The owner's accommodations consist of a roomy deckhouse, and two large double staterooms with a communicating bathroom. Furnishings and equipment include the latest developments, such as electric refrigerating system, electric toilets, hot and cold pressure water system and so on. Galley and forecastle are forward. The forward cockpit and the bridge are fitted with raking windshields.



Accommodation plan of the new express cruiser

Of Interest to the Skipper

Linton Foster's "Black Penny" is a 1936 Baltzer Jonesport cruiser, 36' 6" long, 10' 6" beam, and 3' draft. Two Gray 6-91 engines give her a speed of 25 m.p.h. She may be seen at Minneford's, City Island, New York

Champion Presents Outboard Prizes

THE Champion Spark Plug Company, which in past years has presented silver trophies to the high point winners in the various races sanctioned by the National Outboard Association, is awarding more utilitarian prizes to the 1935 winners. The prizes are wrist watches, waterproof and cased in stainless steel, and immune to shock or violent temperature changes. Radium hands and numerals give visibility in the dark.

Following are the 1935 winners as announced by the N.O.A. Eastern Division: Class A, Thomas Tyson; Class B and C, Fred Jacoby, Jr.; Class F, Joel Thorne. Mid-Western Division: Classes A and B, Bob Meyer; Class C, Dick Neal; Class F, Howard Frazier. Western Division: Class A, William Larzelere; Class B, T. E. Dudley; Class C, Pat Cummins; Class F, Latham Goble. Southern Division: Class A, Bob Mitchell; Classes B and C, Frank Vincent; Class F, Walter Everett.

Three racers gained a spare watch each by winning in two different classes. Awards are limited to those who used Champion spark plugs in their outboard motors but this restriction did not disqualify any of the sixteen winners announced by the National Outboard Association.

Delabar to Head Bendix Marine

It has been announced by Vincent Bendix that H. G. Delabar has been named vice president and general manager of the Bendix Marine Products Corporation, a new division of the Bendix Aviation Corporation. Mr. Delabar is no stranger to the industry since he has been, for the last four years, president and general manager of the Johnson Motor Co. and a member of the executive committee of the National Association of Engine and Boat Manufacturers. Prior to 1932 he was with Hayden Stone & Co. and during the war he was an executive of the Emergency Fleet Corporation and was later comptroller and general manager of the Wright-Martin Aircraft Corporation.

Mr. Delabar will make his headquarters in South Bend, Indiana.

H. G. Delabar, Vice President and General Manager of Bendix Marine Products Corporation

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An Enemy to Corrosion

A product which will be appreciated by fishermen and gun "sharks" is Fiendoil, manufactured by the McCambridge & McCambridge Co., of Washington, D. C. It is a favorite with many of the country's leading riflemen and skeet shooters and is used by fishing enthusiasts. It is not only a cleaner but has a special chemical inhibitor of rust and corrosion that prevents pitting and protects guns and fishing gear. Rubbing and scrubbing is unnecessary; simply apply it with a bristle brush or swab and leave it alone.

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Non-fouling Throughout the Season

It is annoying to have to haul out in midsummer and discover that your boat's bottom is encrusted with barnacles and adorned with a hanging garden of marine growth, to say nothing of the possibility of damage by the teredo — usually just when you are about to begin a cruise. Hauling out, scraping, sandpapering and painting are expensive both in time and money — and there is almost always a fine sailing breeze when your boat is on the ways.

"Wm. Geo. Bruce," a Burger standard 34-footer modified for the Milwaukee Harbor Board, carries twelve in the cabin and sixteen in the cockpit. A Chrysler Crown reduction gear engine drives her 16 m.p.h.

This 62-foot Italian cruiser "Algaiola," owned by Count C. F. Trossi, is powered with two Scripps Models 306 and 307 V-12 engines which develop 280 hp. each at 2400 r.p.m. She makes 30 miles per hour

The solution of this problem is to find a bottom paint that will go through the season without fouling. The makers of Bridgeport Bronze have been guaranteeing this result for over thirty years and have always backed up their product with a guarantee. They guarantee a perfectly clean, smooth hull, free from the slightest evidence of marine growth. Bridgeport Bronze is favored by leading boat builders and yards.

A clean hull all season means a faster and more easily handled boat.

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Owens Cruisers

Illustrated here is the latest product of the Owens Yacht Company, of Annapolis, Maryland. The Owens "29" Sedan is a well-known and popular model, moderately priced. It is powered with a rubber-mounted Gray 6–71 motor, with an engine bed specially designed to make life easy for engine and ship, increase efficiency, and minimize vibration.

The comfort and stability which go with good beam is characteristic of these Owens boats, and the low center of gravity gives confidence in their behavior. These hull features make them seaworthy and combine modern lines with roomy interior.

The cabin accommodations have been carefully worked out for the maximum of comfort and an attractive seating arrangement. The boat has cruising accommodations for four, with large locker space and a double-bed-dinette arrangement of interest.

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Samual R. Mays Joins Dawn Cruisers

Dawn Cruisers, Inc., of Classon Point, N. Y., announces that Samuel R. Mays has joined them, as of December 30, 1935, in the capacity of vice president and general sales manager. Mr. Mays brings to the Dawn organization a wealth of experience. He was vice president and treasurer of Edward Smith & Co. for over six years, and previous to that was with American Car & Foundry, and with Dodge. Boating to him is both a vocation and an avocation, as he has been a yachtsman for many years and did his "bit" in the Navy during the war.

Mr. Mays now has complete charge of the sales department of Dawn. This is the final step in building a complete organization for the sales, service, and maintenance of Dawn Cruisers, which was begun by Mr. Robinson as president two years ago.

Mr. Robinson is to devote his entire time to executive management and to the construction and engineering phases of the business.

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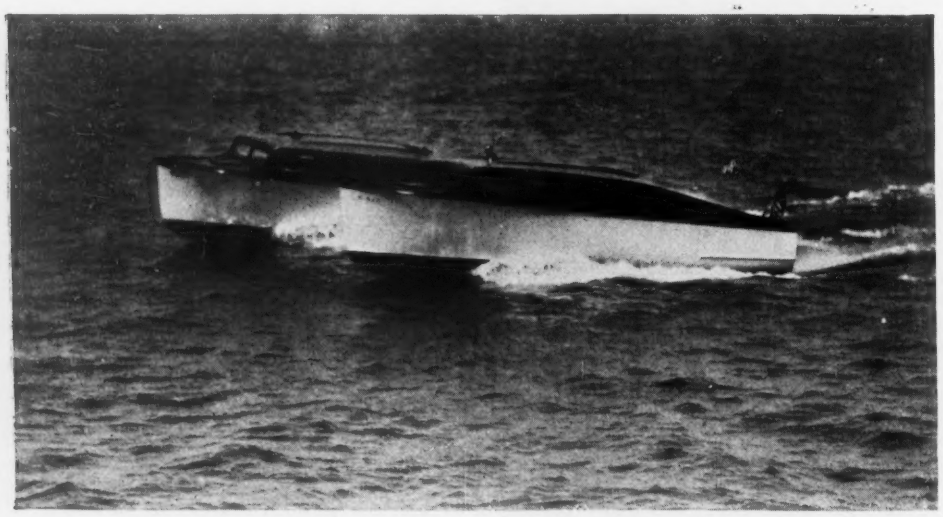
Robinson Says Business is Better!

News of business improvement is good news, particularly when it creeps into "the luxury class." The announcement, therefore, by Robinson Marine Construction Company, Inc., Benton Harbor, Michigan, that it has enjoyed the most successful year since 1930 is encouraging.

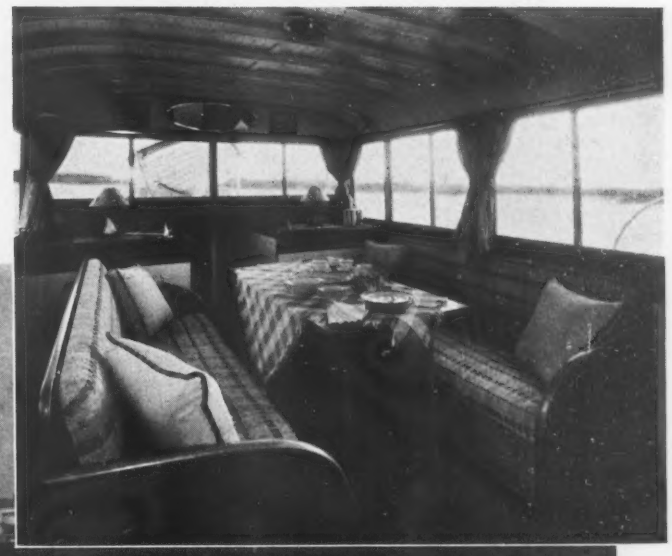
The principal production this year has been in cruisers ranging from 32′ to 54′, and in a large number of runabouts. Perhaps the outstanding achievement was the construction of a 36′ boat which makes 55 m.p.h. powered with a model P12 Capitol motor.

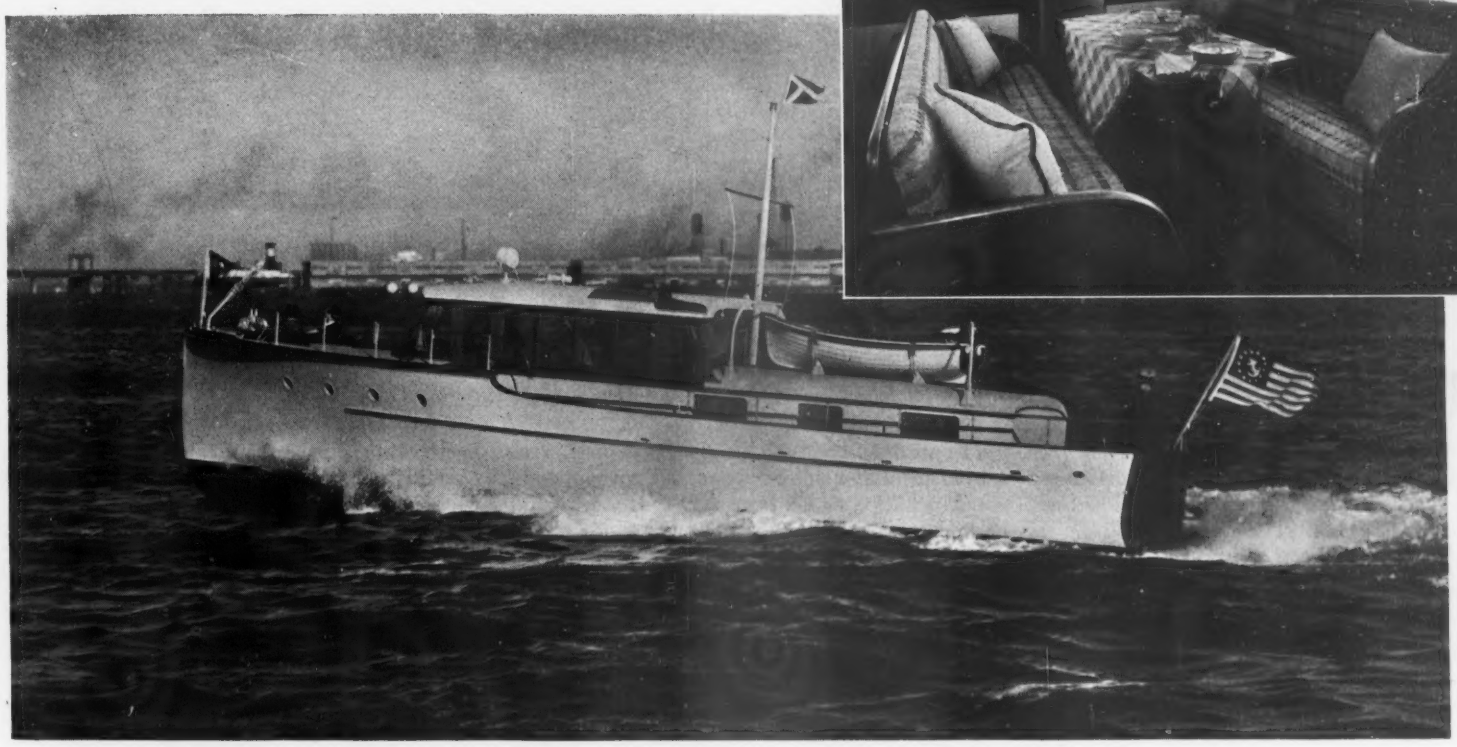


Two Owens "29" Sedan Cruisers on a recent trial run. Standard power is the Gray 6-71, rubber mounted. Right, "Fiesta" is a 30-footer designed by Furnans. Her engine is a Kermath Sea Bird

At the Motor Boat Show

A Review of the Boats, Engines and Accessories on Exhibition in the Grand Central Palace, New York





The Elco 48-foot motor yacht is a fast, modern cruiser of pleasing appearance. Power may be either gasoline or Diesel, single or twin screw

The 1936 Elco Fleet

THE Elco Works, whose showroom, Port Elco, is an integral part of the Motor Boat Show from January 17th to 25th, present this year an even more extensive selection of standardized cruisers than has been offered in the past.

Six individual sizes — ranging from the Veedette 31-footer to the 48-foot Motor Yacht — comprise the fleet, but on practically all of these hulls a number of different arrangements are available, making a total of eighteen distinctive models. The full 1936 fleet consists of the following: The Veedette 31, the Cruisette 32, the Cruisette 38, the Cruiser 38, Cruiser 41, and the 48-foot Motor Yacht.

Elco has always taken particular care to utilize every inch of space in the arrangement and design of the interior accommodations of its boats, and those exhibited this year are no exception to this rule.

In keeping with the modern trend of streamlined styling, Elco is offering an improved design of superstructure called "fairlined," which is most pleasing to the eye, yet retains an element of conservatism usually desired by the experienced yachtsman.

An example of the wide choice of interior arrangements to be had in all Elco boats, the Cruisette 32 is available in four models. The Day Boat fills the requirements of those wanting a fast, seaworthy open boat with limited accommodations. The Standard 32 is of the single cabin, open cockpit type, with comfortable sleeping accommodations for four. If an additional cabin is wanted, the Custom 32 is available with forward cabin sleeping four and the popular deck cabin with accommodations for two or four. In the bow of this model is a delightful forward cockpit and in the stern a large "sunshine" cockpit. The Cruisette 32 may also be had as an Angler Model, designed and equipped for offshore fishing. Single or twin screw gasoline engines may be installed or a single Diesel engine. Speeds up to 21 m.p.h. may be obtained.

The Cruisette 38 also offers a wide choice of arrangements in the Standard, Custom and Angler models, and may be powered with single or twin screw gasoline or Diesel engines, giving speeds up to 25 m.p.h.

Recognizing the demand for a boat larger than the 38, Elco is introducing this year the new 41-foot Cruiser. She will meet the requirements of the yachtsman wanting an able, rugged boat with increased comfort and provided with quarters forward for a paid hand.

The 48-foot Twin Screw Motor Yacht is, of course, a member of the 1936 Elco Fleet. This beautiful boat was the cynosure of all eyes at the last Motor Boat Show and was admired by all who saw her afloat last season. Her graceful, modern design, her seagoing ability, and her comfortable accommodations mark a real advance in the art of naval architecture.

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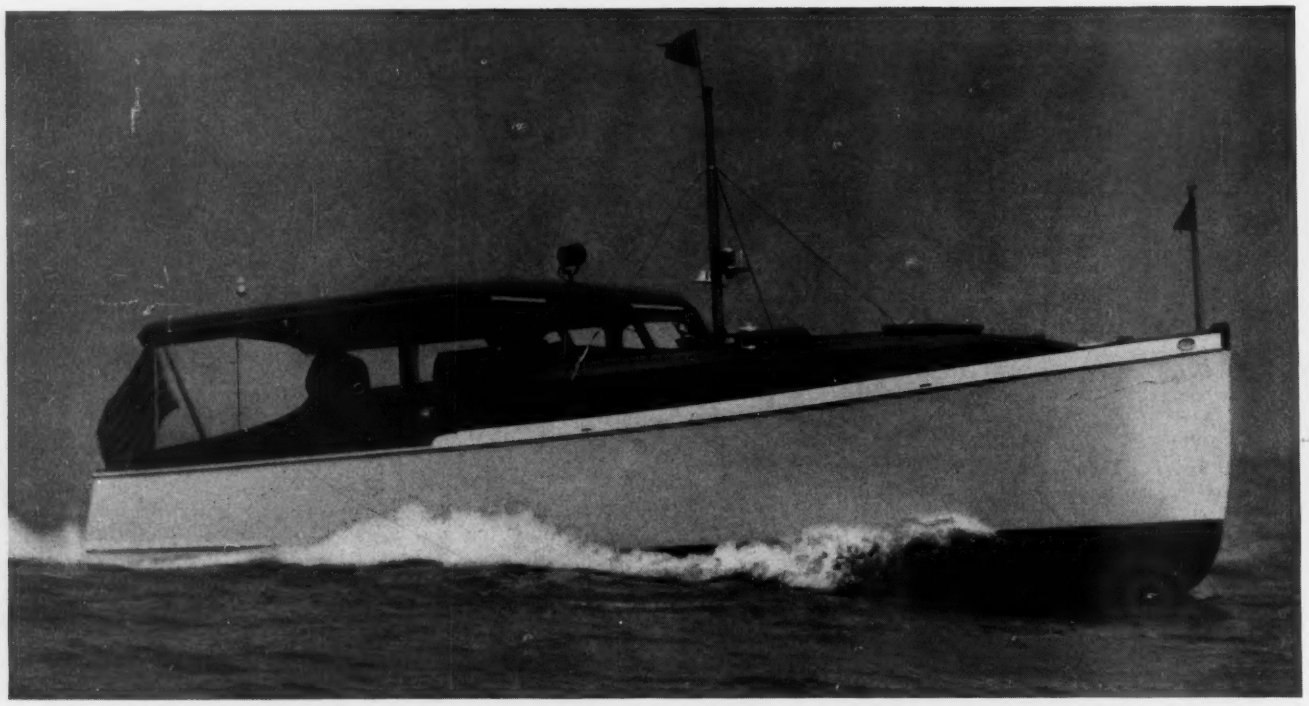
Dodge Boats

FOUR boats are shown in the Dodge display, three motor craft and one sail boat. The largest of the fleet is the 26′ cruiser, of 8′ 5″ beam and 29″ draft. She is a clinker built boat with a cabin providing sleeping accommodations for four. There is an enclosed toilet room and a galley with full equipment. As power plant, there is a choice between a 4-cylinder 60 hp. engine driving the boat 14 m.p.h., and a 6-cylinder engine which develops 80 hp. and gives a speed of 18 m.p.h.

Then there is the 19′ 6″ runabout. This boat has a double cockpit forward which seats six, the engine being installed aft. It has a 6-cylinder motor of 97 hp. that drives the boat at a 36-mile pace.

The third boat in the display is a 16′ utility boat designed for the fisherman. The engine of this handy craft will throttle down to trolling speed or drive the boat up to 25 m.p.h. The boat is fitted with a "kit well" for holding all sorts of fishing gear.

The sail boat is 18′ in length over all, 7′ beam



This Matthews 38-foot Twin Cabin Cruiser does 15 to 17 m.p.h. with a pair of 6-80 Kermath motors

and 10″ draft of hull. With the board down, the draft is 4′. She is an unballasted V-bottom centerboarder, framed with oak and planked with mahogany. Her mast is rectangular and she carries 165 square feet of sail in Marconi mainsail and high cut jib.

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Sparkman & Stephens, Inc.

YACHTSMEN interested in the designing, building, selling or buying of any and all types of yachts should be sure to visit the booth of Sparkman & Stephens, Inc., the well known naval architects and yacht brokers. Here are found accurate scale models of some of the outstanding craft designed by this firm, including *Dorade*, *Stormy Weather*, *Edlu*, *Aweigh*, the Six-Metre *Jill* and the Eight-Metre *Conewago*, the latter twice defender of the Canada's Cup. Plans for new boats now under construction are available for inspection, as well as photographs and descriptions of yachts of all sizes and types which the firm is offering for sale or charter.

Yachtsmen are invited to make the Sparkman & Stephens booth their headquarters during the Show.

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The Hubert Johnson Sea Skiff

HUBERT JOHNSON, of Bay Head, N. J., long known as a builder of famous sea skiff models, is showing a new model known as the 24-foot Convertible. Designed along lines developed in 30 years' experience with sea skiffs, the hull is fast, dry and seaworthy. This boat has a toilet under the forward deck, and by an ingenious arrangement may be used as a tight, shelter-house craft, with glass side windows and windshield, or be converted in a few minutes into an open boat. She may also be used with windshield and side windows, but without top.

In addition to the boat shown, Hubert Johnson is also offering for 1936 a comprehensive line of Sea Skiffs, of both the open and cruising type, from 19 feet in length up.

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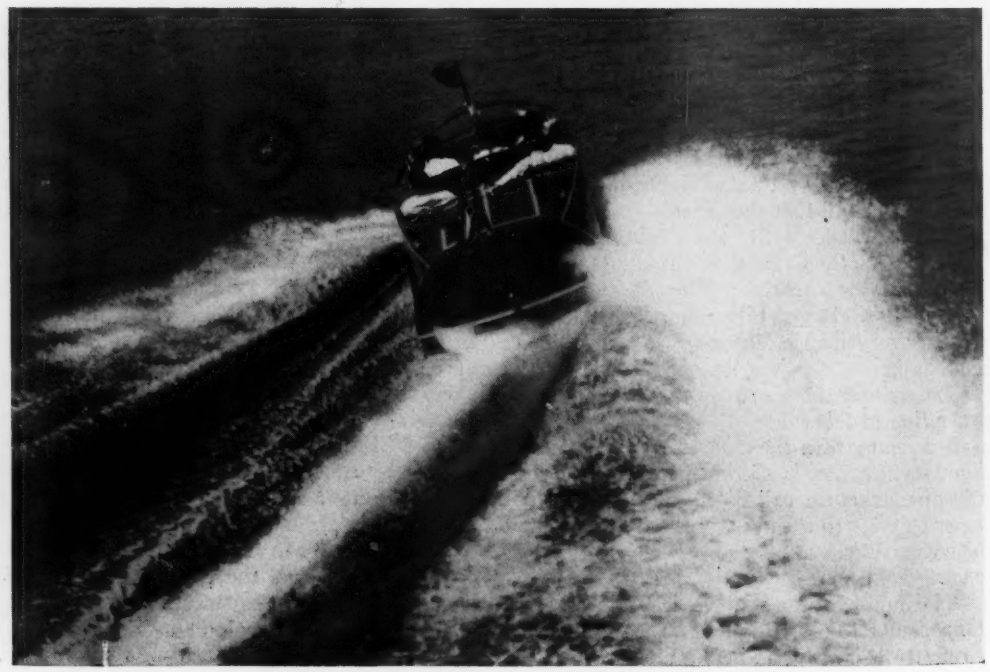
Matthews Shows Three Cruisers

THE Matthews Company, Port Clinton, Ohio, has one of the most elaborate exhibits in recent years at the National Motor Boat Show, three of the firm's well-known "38's" being displayed.

Visitors to the "38" Twin Cabin, powered with a pair of 80 hp. Kermaths, will note a number of changes and improvements over last year's model. In the 1936 boat a dining nook is incorporated in the main cabin together with a combination dresser and buffet arrangement wherein a special spirits locker is provided. This model sleeps two in the owner's stateroom forward and four more in the main cabin.

Also shown is a Sedan model of the same hull, and with the same twin screw power plant as the Twin Cabin. The Sedan sleeps a total of six, with four berths in the cabin and two more in the deckhouse.

The offshore fisherman will find the "38" Sport Cruiser one of the most complete and elaborate boats on the market for both fishing and cruising. It has all the special Matthews fishing equipment installed, including a new type of fishing chair, a crow's nest on the spar with ratlines in double shrouds on one side and a bowsprit and harpooner's pulpit. Beneath the cockpit floor a special live bait well with circulating water is installed. Power is supplied by two



The Eddy Aqua-Flow 19-foot runabout going into a turn at high speed

Another adaptation of the Matthews "38" hull is this Playboat model. A single Kermath gives a 12-mile speed

90–110 hp. Kermaths with twin rudders — a standard feature in all Matthews twin screw installations. These give speeds up to 20–22 m.p.h.

The twenty different models of Matthews Stock Cruisers for 1936 have a new external appearance — moderately streamlined — a new scheme of interior decoration throughout, and an important change in hull lines.

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A. R. True

THE feature of the exhibit of A. R. True, of Amesbury, Mass., is a boat which he builds in 12′, 14′ and 16′ lengths with a new arrangement for an outboard motor. He also shows a 16′ sailing skiff, a 12′ sailing skiff and a Snipe. The 12′ skiff now has a short deck forward and is rigged as a jib and mainsail boat.

Dyer Dinks

THE Anchorage, Inc., of Providence, R. I., builders of the well known Dyer Dinks, is showing its popular 10-foot dinghy, introduced at the Show last year with great success, and also a scale model of a new, racy 16′ 6″ sloop with wishbone boom, designed by Cox & Stevens, P. L. Rhodes, Associate.

The 10-foot dinghy is a fine little craft, ruggedly built of fine materials, and equipped with a handy lug rig and sail by Ratsey & Lapthorn. A year's usage has shown this craft to be remarkably fast and an ideal tender for small craft, as she tows perfectly, rows well, and is light and easy to handle.

The sloop has a tall, loose-footed mainsail, and tubular wishbone boom and Genoa jib, with total sail area of 120 sq. ft. A parachute spinnaker will add to the sportiness of sailing this newcomer. A class of these boats is being organized for members of the Indian Harbor Y. C., and boats are already under construction for C. D. Mallory, H. R. Kunhardt and George Lauder.

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Eddy Marine Corporation

CONSERVATIVELY managed but with keen appreciation of the requirements of the motor boatman, the Eddy Marine Corporation are presenting only one design at the 1936 show, *viz:* the fast, graceful-lined, Ford-powered "Eddy Aqua-Flow" power boat.

The significant characteristics of this boat are its handy size (19′ 4″ over all), "non-pounding" hull, unusual dryness, and the Ford B-4 or V-8 marine-adapted motor installation — coupled with moderate cost.

This boat will be available in six models all on the same hull, varying only in arrangement, power plant, and equipment.

The power plant, perhaps the most important feature of the boat, has been developed after a long period of study and testing, and should prove an outstanding performer.

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Fairfield Frostbite Dinghies

THE exhibit of the Fairfield Boat Works of Greenwich, Connecticut, this year emphasizes the frostbite dinghy. Three types are shown: the Potter Class B one-design, the Alden Class X, and Mr. Frank Campbell's *Confusion*, which contributed to the victory of the American team in the International Dinghy Regatta last September.

In addition, this firm is showing pictures of various club launches and yacht tenders which it has built during the past year.

This Eddy Aqua-Flow 19-footer, with a Ford V-8 conversion, is available in six different models

The 1936 a.c.f. Fleet

THE American Car and Foundry Company, of Wilmington, Del., is introducing for the first time this year two new models: the a.c.f. 26-foot "Roamer," powered with a Chrysler "Ace" 6-cylinder direct drive engine, giving a speed of about 17 miles per hour; and the a.c.f. 32-foot "Wanderer," powered with the same motor which gives the boat a speed of about 13 miles per hour. (An installation of two of these motors in "Wanderer" will give a speed of about 18 miles per hour.)

In addition to the two new craft there is on display at The Grand Central Palace an a.c.f. 34-foot cruiser fitted with a mahogany and glass (screened) bridge deck enclosure.

The complete a.c.f. fleet for 1936 consists of the following sizes and models:

26′ "Roamer"	39′ Double cabin cruiser
30′ Day cruiser	40′ Single cabin cruiser
30′ Cruiser runabout	40′ Double cabin cruiser
32′ "Wanderer"	46′ Twin screw cruiser
34′ Cruiser	47′ Motor yacht
38′ Express cruiser	54′ Motor yacht
	68′ Motor yacht

It is of particular interest that the joiner work and woodwork on a.c.f. boats is turned out in one of the most complete wood-working plants on the Eastern seaboard. The a.c.f. plant at Wilmington designs and manufactures woodwork not only for yachts, but for some of the finest homes in America. As a result of years of experience in manufacturing cruisers, a.c.f.'s naval architects have produced in their models a well balanced combination of theory and practice necessary for a successful cruiser.

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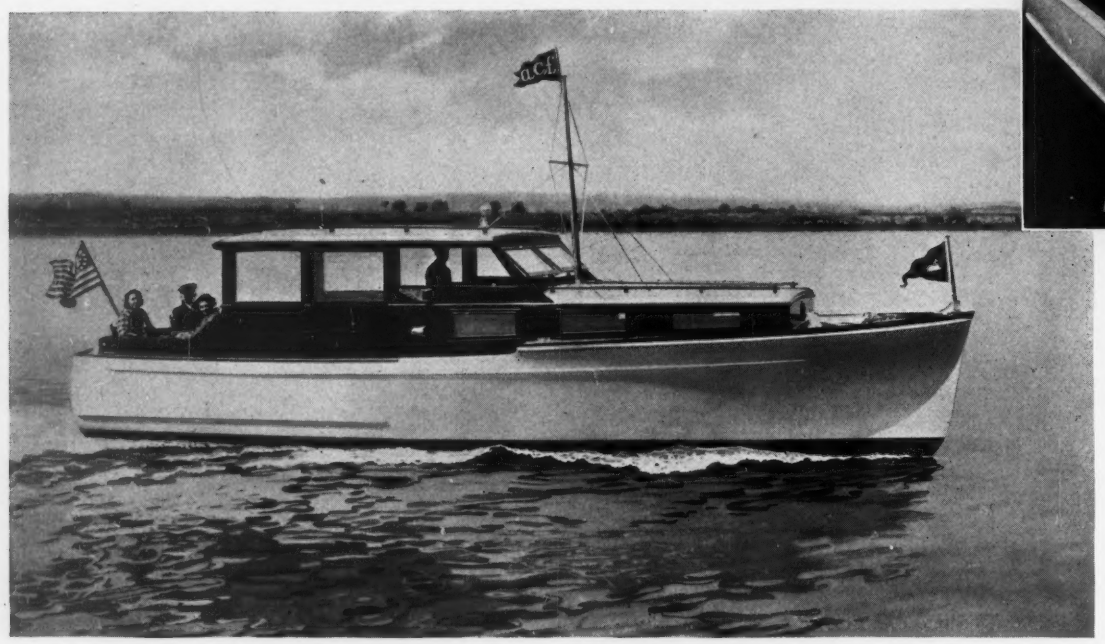
Bausch & Lomb Binoculars

WHEN a yachtsman wants a pair of binoculars or a night glass, he wants a good pair, with proper magnification, large field, and great light-gathering power. Inefficient glasses are not only a curse, but may be actually dangerous in an emergency. Wherefore the exhibit of Bausch & Lomb Optical Co., of Rochester, N. Y., is a pleasure to inspect. For here are real binoculars, built to meet the special needs of yachtsmen and sportsmen in general.

In addition to their well-known standard models, Bausch & Lomb are showing two new glasses, one a special anti-aircraft defense model developed for U. S. Army use, and the de luxe 7 by 50 mm. U. S. Navy type binocular. Both types are of exceptional light-gathering power. Another new one is a binocular with range finding scale, developed for military purposes. The newcomers are flanked by the standard models of binoculars and field glasses for hunting, field sports, etc.

One of the most interesting objects in this display is the bubble sextant used for aerial navigation by Admiral Richard Byrd in his last flight over the polar regions in Antarctica. This same type of instrument has been used by Colonel Lindbergh, Wiley Post and other well-known fliers.



The roomy cockpit of the a.c.f. 26-foot Roamer model. At left, another a.c.f. cruiser, a 34-footer with mahogany, screened bridge deck enclosure

Below, the Gar Wood 16-foot De Luxe runabout in which many quality features are incorporated. She shows speeds up to 37 miles per hour

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The Gar Wood Display

NINE Gar Wood boats are on display in the 1936 Show, the flagship of the fleet being a 32′ streamline custom cruiser. She is a boat of 10′ beam and headroom in the cabin is 6′ 2″. The bottom is double planked with mahogany, canvas being laid between the two thicknesses of wood. All intermediate frames are rabbeted into keel and chine and are spaced 6″ center to center. Keelson is strongly braced. Hardware is all of Gar Wood design and in the cockpit and on deck is chromium plated. All fastenings are of copper, bronze or Everdur. This latter alloy was first used in *Miss America V*, Harmsworth Trophy winner in 1926, and has since then been standard in Gar Wood boats.

In addition to the 32-footer, the exhibit includes eight other models. These are the 16′ DeLuxe runabout, the 16′ custom speedster, the 18′ custom runabout, the 18′ deluxe utility, the 20′ streamline cabin utility, the 22′ custom runabout, the 28′ custom runabout and the 26′ cruiser.

The 20′ utility model is fitted with a cabin and is planned for use by fishermen and sportsmen.

Seven hull and engine options are offered, giving a wide choice of speed, and trolling speed as low as two miles an hour may be maintained. An open cockpit seats nine adults. All leather upholstery is genuine leather. Hull exterior, cabin and decks are hand rubbed satin finish to show to advantage the grain of the mahogany used in them. Special attention has been paid to safety features, including ventilation of the bilges and all inclosed spaces.

The Gar Wood line for 1936 is known as the "Trophy Fleet."

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The Colonial Boat Company

THE growing popularity of the moderate sized, moderate priced, standardized cruiser is evidenced in the concentration by the Colonial Boat Company of Port Norris, New Jersey, on two sizes, the 26-foot and the 32-foot cruiser.

The 32-footer is being exhibited at the Motor Boat Show this year, and its well-thought-out arrangement and the many new comforts in its design should prove of interest to all yacht enthusiasts.

Seven new models in the two sizes, with different accommodation and deck plans, are being offered.

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Dynol, the Power Lubricant by Du Pont

DYNOL, designed primarily for two-cycle motors, is a chemically compounded lubricant developed by the du Pont laboratories to achieve perfect lubrication plus increased power and speed.

By an entirely new lubricating principle, Dynol gives great power and speed, reduces wear and lengthens motor life. The formula for Dynol contains a new material, never before commercially available, which increases the power of both standard and racing motors. Dynamometer tests prove an actual three per cent increase in delivered horse power.

Motors examined after thorough and extended tests show that Dynol burns cleanly and completely. This definitely lessens carbonization, fouling of spark plugs and sticking of piston rings. In addition to an actual saving in the cost of fuel, the user of Dynol also saves in weight and space when carrying reserve supplies of lubricant.

Dynol should be mixed with gasoline, alcohol or benzol fuels in half the proportion recommended for good grades of mineral oils for the various types and sizes of two-cycle outboard motors. For the racing motor, the new motor, or the service motor run at high speed, the use of approximately two-thirds as much Dynol as is specified for mineral oils is recommended.

Dynol is the companion product of Dynax, the complete speed fuel which holds many outboard speed and marathon records. Both are made by E. I. Du Pont de Nemours & Company, Inc., Wilmington, Delaware.

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John G. Alden

NEITHER Mr. Alden nor his work needs introduction.

In addition to a complete brokerage list of yachts for sale and charter, visitors to the Alden section, on the third floor of the Motor Boat Show, will find interesting designs of yachts built and to be built, and in particular the plans of the new Alden stock 36-foot yawls and cutters, and the new stock 31-foot yawls and sloops. As may be expected from a naval architect who not only designs but spends much of his time at sea, cruising and racing, Mr. Alden's yachts are able, comfortable, and fast.

Consolidated's 39-Footer

THE Consolidated Shipbuilding Corporation, Morris Heights, New York City, occupy a prominent position at the Grand Central Palace, where they have on display one of the larger cruisers to be seen at the Show. This is the 1936 model of the 39-foot Twin Cabin Consolidated Play Boat.

Consolidated introduced this type of craft at last year's Show, where it attracted much attention by its fine workmanship and its general layout. The 1936 Play Boat is more advanced in design and bears all the characteristics that mark Consolidated-built boats. The Show model will sleep six comfortably and a large after cockpit is a most desirable feature. Two 80 hp. engines drive the boat at a speed of 18 miles per hour.

Also, at the Show, Consolidated exhibits its line of famous Speedway gasoline engines up to 300 hp., and its 300 hp. Speedway Diesel engines. The engine exhibit is on the mezzanine floor in Space W.

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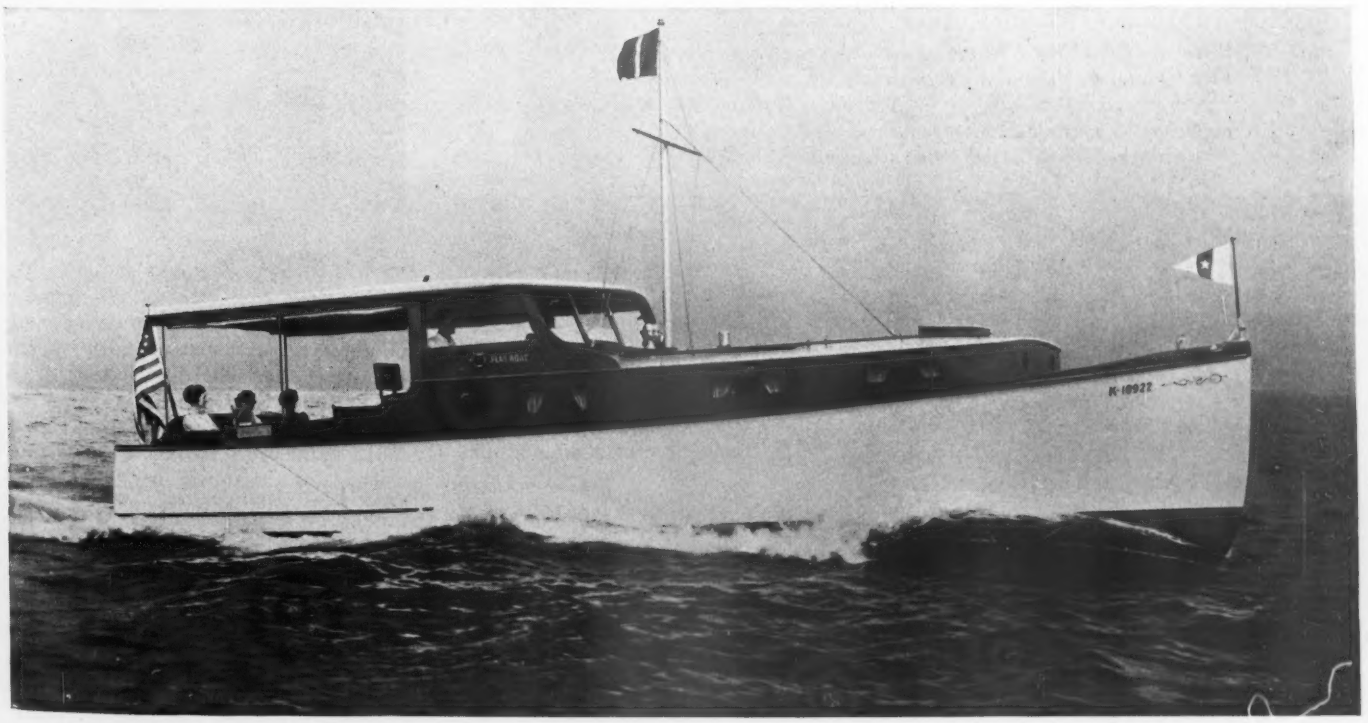
Copper and Bronze

COPPER and bronze are two metals which play highly important parts in the make-up of practically every yacht, whatever her size and type. One of the largest manufacturers of fittings made of copper and its alloys is the American Brass Co., which is exhibiting numerous articles made of bronze, nickel silver, etc. In this exhibit will be seen Tobin bronze and Tempaloy propeller shafting, while the famous Everdur metal is shown in the form of fastenings, cast and wrought deck fittings and hardware, as well as welded tanks for gasoline and hot water storage. Anaconda deoxidized copper tube and cast bronze and wrought copper fittings for plumbing lines are on display, as well as paper-thin sheets of Anaconda Electro-sheet copper, and drawn and extruded nickel silver moldings for trim.



Consolidated's 1936 model 39-foot Twin Cabin Play Boat. Two 80 hp. motors drive her at 18 m.p.h.

This 1936 Chris-Craft Utility Cruiser, designed with the requirements of the fisherman in mind, has a two-berth cabin forward with toilet and stowage compartment. This cruising accommodation is cleverly concealed so that the boat looks like an able utility craft rather than a cruiser. Engines of 55, 75 or 93 hp. give speeds up to 22 m.p.h.

Chris-Craft Runabouts, Utility Boats, Cruisers and Racers

THE prominent position occupied by the Chris-Craft Corporation in the field of high grade pleasure boat manufacture is indicated by the complete new line of runabouts, utility boats, sea skiffs, utility cruisers and cruisers which it offers for 1936, many of which are on exhibition at this year's Motor Boat Show. The new fleet surpasses all previous efforts of the corporation in number of models, new features of design and construction and in new modern streamlines and styling. Included in the new 1936 fleet are six runabout models, a special race boat, three utility models, a sea skiff, a complete line of cruisers, including a semi-enclosed cruiser, a utility cruiser and a houseboat.

In the runabout class the new Chris-Craft feature level riding qualities, and embody such desirable features as double planked bottoms, batten seam sides, salt water equipment, automatic bilge bailers, worm and sector steering gears and rubber mounted motors.

The runabout models are as follows:

16-foot De Luxe, 55 hp. or 75 hp.; 32 and 35 m.p.h.
16-foot Double Cockpit, 55 hp.; 32 m.p.h.
18-foot Double Cockpit, 55 or 75 hp.; 31 and 34 m.p.h.
19-foot Double Cockpit, 75 or 93 hp.; 33 and 36 m.p.h.
22-foot Custom Runabout, 93, 115 or 152 hp.; 32, 35 and 40 m.p.h.
25-foot Custom Runabout, 115 or 150 hp.; 34 and 38 m.p.h.
27-foot Custom Runabout, 250 hp. V-8 motor; 45 m.p.h.
19-foot Special Race Boat, 155 hp.; 45–47 m.p.h.

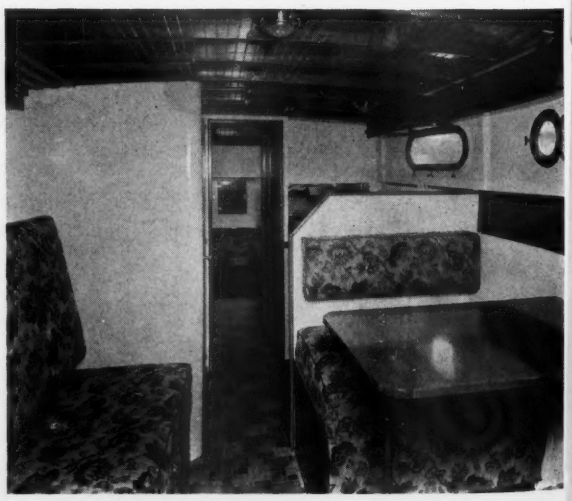
In the utility field, Chris-Craft again features a 16-foot model with large seating capacity, priced within the reach of all, and showing low operating cost. A speed of 26 m.p.h. is attained with a 45 hp. motor.

New 18-foot Standard and De Luxe Models are offered with options of 55 or 75 hp. motors with speeds of 29 to 32 m.p.h.

In 21-foot Utilities, Chris-Craft has one Standard and three De Luxe models. The former is powered with a 55 hp. engine and is capable of 26 m.p.h., while the De Luxe models offer a choice of 55, 75 or 93 hp. motors with speeds of 26, 29 or 32 m.p.h.

A new Chris-Craft model this year is a sturdy 23½-foot Sea Skiff which combines the beam and husky hull of a cruiser with the roomy cockpit layout of the utility models. Speeds vary with the power plant selected, and are 19, 22 and 24 m.p.h. with 55, 75 or 93 hp. motor, respectively. A development of this hull is found in a 23½-footer of the semi-enclosed type with a streamlined cabin, running three-fourths the length of the boat, consisting of permanent top, ventilating windshield, built-in glass side shields and side curtains, with toilet compartment in the bow.

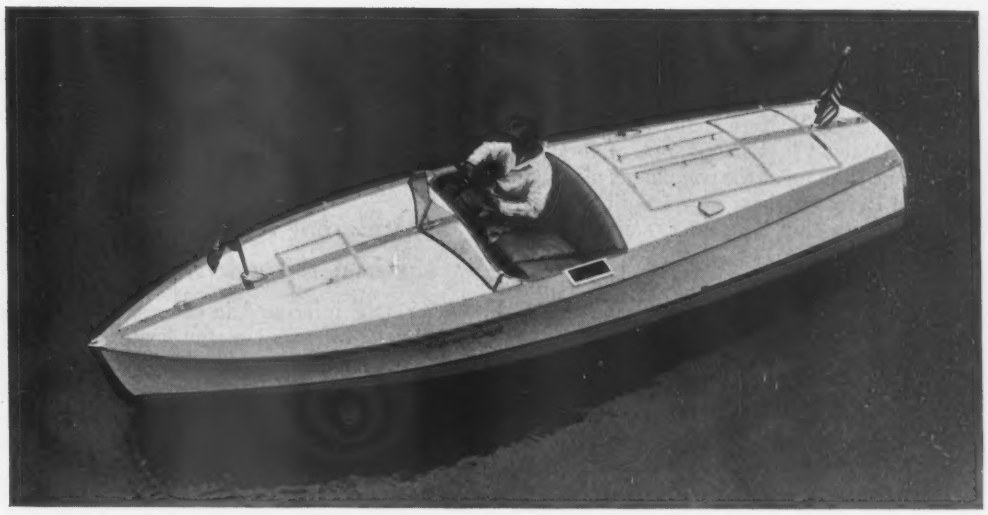
Notable achievement in design, styling and construction has been expressed for 1936 in the new cruiser models. The new fleet comprises hull lengths of 25, 28, 31 and 38 feet, with a wide selection of power plant, speed, and cabin arrangement. Features of all Chris-Craft cruiser models include double planked bottoms and decks, transverse framing, self-bailing cockpits, sound proofing, rubber mounted motors and clutch control, expansion type mufflers and improved cabin and hull ventilation.



Below, the Chris-Craft Conqueror, a 31-footer with accommodations for four. A choice of engines in single or twin screw installations is offered, with speeds from 14 to 22 m.p.h. Right, the dining nook may be converted into a double berth. The forward stateroom has two full length berths and wardrobe lockers

Largest of the Chris-Craft cruiser fleet is the new 38-foot Individualized Cruiser, in which is found two large staterooms, sleeping accommodations for six, dining nook, a separate extra large galley, built-in dresser, full length wardrobe lockers and more storage space than in an apartment. Power is furnished by 93, 115, twin 75 or twin 93 hp. motors with reduction gear drive, giving speeds from 16 to 22 m.p.h.

Last on the list is the new 30-foot houseboat. Sturdily built, it has a beam of 11½ feet and roomy decks fore and aft. The cabin contains a 13-foot by 11-foot living room, toilet, galley space, master and guest staterooms.



This 19-foot Chris-Craft has traveled at a 47.619-mile pace, driven by a 225 cubic inch engine of 155 hp. One of these boats competed successfully in several 1935 regattas

Richardson Little Giants, Juniors and Cruisabouts

THE new Richardsons have the hulls painted gloss white with underbody of green, red Richardson arrows below and parallel to sheer, light tan decks and plenty of chrome and mahogany. Of the ten models offered, four are on the 25′ by 7′ 9″ "Little Giant" hull; three on the 30′ by 9′ 4″ "Junior," and three on the 32′ by 9′ 9″ "Cruisabout."

A "Little Giant" four-berth cruiser with sunshine cockpit is on display. This boat has toilet room, cable locker, suitcase storage and water tank below the forward deck. In the cabin is a complete and compact galley equipped with every convenience and, directly opposite, an extra wide steersman's seat. Separating the forepeak from the cabin is a double bulkhead with clothes and dish lockers.

Abaft the galley are four comfortable, flat-top, spring-filled and upholstered berths. The upper berths are of the Hi-Lo type, making them convertible into seats during the day.

The cockpit is large and has under it a 6-51 rubber-mounted Gray engine, which will drive the boat better than 18 m.p.h. At the stern is a wide cushioned seat with a 36-gallon gasoline tank beneath it.

Other Richardson "Little Giants" are the Fisherman, Commuter, and Cruiser, with cockpit control.

Then come the "Juniors," 30′ long and 9′ 4″ beam, in three arrangements including a sedan type which is on display and offers some new and unusual features. The lavatory is under the forward deck; abaft that, behind the windshield, is a double-width steersman's seat and a locker. Further aft, on the starboard side, are upper and lower berths and a galley. Opposite the galley is a four-place dining nook which can be converted into a double berth. Just forward of the nook is a cabinet and a folding bar. These boats have unobstructed vision from the cabin all around the horizon. The 6-71 Gray motor, rubber-mounted, is standard equipment, giving a speed of 15–16 miles per hour.

The "Cruisabout" (32′ long) is of interest because of her spaciousness and moderate price. Of the three models in this size, perhaps the most popular is the single cabin enclosed bridge Cruisabout with accommodations for six. Each of these models is equipped with a rubber-mounted Gray 6-91 motor.

All of the new Richardsons have Goodrich cutless rubber bearings, Maxim silencers, copper window screens, alcohol (fluid) cook stoves, and many other improvements.

Right, the Richardson Little Giant is a racy-looking cruiser that can do 18 m.p.h. Below, this Richardson Junior is a 30-footer that can take a crowd for a day's run or accommodate four on a cruise. The dining nook seats four and can be quickly converted into a double berth

Skaneateles Boats

ON THE main floor of the Palace is the booth of the Skaneateles Boat and Canoe Co., of Skaneateles, N. Y. Here is displayed one of the famous Comet Class sloops, one of forty now under construction at the company's plant. This boat is a 16-footer, sloop rigged, built with cedar planking with ship lap seams, screw fastened, and mahogany trim.

Besides the Comet, there are plans of other Skaneateles boats such as the 15′ 6″ Snipes, a 14′ sailing skiff which will carry an outboard motor, and the standard line of 21′ sloops, 19′ Interlake sloops, 14′ International dinghies, outboard motor boats, row boats and St. Lawrence skiffs.

Representatives of the Comet Class will be on duty at the booth, Space 5B, during the Show.

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Russell J. Pouliot, Inc.

THE designer and builder of *Baccarat*, winner in Class B in the 1934 Bermuda Race, Pouliot of Detroit, has on display this year models, colored photographs, and plans of sailing craft which this yard has produced during the past three years. And, also, a fascinating 34-inch working model of a Star Boat.

In addition, two interesting boats are introduced at this Motor Boat Show: An 18-foot power boat, and an 18-foot clinker-built sloop, which has proved to be as snappy as the International 14-footers but has more leg room and comfort for adults.

The Pouliot booth will be headquarters for Great Lakes sailors, and a rendezvous for Bermuda Race fans.

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Harrison Radiator Corporation

EFFICIENT cooling is synonymous with the Harrison Radiator, for the engineers of The Harrison Radiator Corporation (Lockport, N. Y.) have a reputation for knowing what they are about.

In Booth I on the third floor of the Motor Boat Show this firm is showing a complete line of its "Heat Exchangers" (liquid to liquid), for oil and water cooling of marine engines.

In connection with the exhibition, there are some interesting bulletins showing the engineering details, efficiency curves, B.T.U. dissipation, etc., and a complete questionnaire for those immediately interested in the installation of this product.

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Armstrong & Galbraith Exhibit
Canoes, Tenders, Rowboats

ANYONE interested in canoes, tenders, rowboats, outboard motor boats and marine hardware should not fail to pay a visit to the booth of Armstrong & Galbraith, well known dealers of New York. For here are many fine models of various sizes and types, all the way from an all-cedar canoe to an all-metal boat.

The cedar canoes are creations of the Peterborough Canoe Co., of Peterborough, Ontario, and are flanked by models of regular canvas covered canoes built by well-known manufacturers.

Perhaps the star attraction of this exhibit is Century's new 225-cubic-inch boat, embodying all the latest features developed for this fine class. Then there are representatives of the famous Lyman line of boats, an outboard runabout and a new dinghy, both of lapstrake construction.

For the fisherman, and those looking for general utility boats, there are a couple of dory type craft, strong and seaworthy, for use with oars or an outboard motor.

All told, Armstrong & Galbraith have a most comprehensive and interesting exhibit of small craft which should prove decidedly attractive to showgoers.

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Columbian Propellers and Bearings

IN ADDITION to their usual fine line of bronze propellers, stuffing boxes, stern bearings, skegs, engine controls, etc., the Columbian Bronze Corporation is showing its new Columbian Frictionless Rubber Roller Bearing, which is said practically to eliminate friction when lubricated by nothing but water, and to operate successfully for long periods without even water as a lubricant. The new live rubber, under compression, absorbs shocks and eliminates vibration to the vanishing point. Wear on propeller shaft and housing is a thing of the past, power and speed is increased, while the bearing has a longer life than any other type of bearing.

Sea Phantom Corporation
Exhibit Streamlined Cruiser

ONE reads with awe the specifications of the new "Sea Phantom" 48-foot cruiser exhibited at the Show. With awe, but with enthusiasm.

For example:

She is 88% streamlined with 18 knots' speed given to her by 260 horse power divided between two Gray motors.

She has electric refrigeration and 110 volt alternating current generator as standard equipment.

She has a bar! Built in and ready to use.

Her cabin accommodations include such things as special compartments for stockings, soiled clothes, blankets; and her closets have shoe racks and hat racks.

She has Venetian blinds instead of the ordinary curtains, combining thereby privacy with ventilation; and monel metal screens in all openings.

Special Johns Manville soundproofing reduces noise from the engine room, and a complete Lux fire-protection system reduces the fire hazard as well as insurance premiums.

And she has a disappearing dinghy! When not in use this is berthed below, but is instantly available by raising a hatch.

Que voulez vous encore?

Century's latest motor boat, a 225 Class racer. She is exhibited by Armstrong & Galbraith, Inc.

Below. One of the famous Comet Class is shown by Skaneateles Boat and Canoe Co. on the main floor

Cape Cod Adds Models

THE Cape Cod Shipbuilding Co. has long been known for its big line of little boats. This year it is not only showing improved models of practically all the old favorites, but has brought out several new ones which are sure to attract a lot of favorable comment.

The largest boat shown is the 23-foot Over-Nite sloop, a staunch, dry boat with accommodations for two persons, and room for two more, in a pinch, under a canvas cockpit cover thrown over the boom. A Gray Sea Scout provides auxiliary power, and the rig is a conservative Marconi type with 275 sq. ft. of sail.

The 18-foot Baby Knockabout is next in line, improved this year with hollow mast, T-type boom, stainless steel rigging, etc. The 15-foot Nimblet, now in its fifth year, has become a popular one-design class at summer camps for boys and girls, and is shown with stainless steel rigging, bronze hardware, mahogany decks, and other improvements.

The Vee-16 is a newer one-design boat of which a de luxe model is shown, mahogany planked and varnished, with hollow mast, stainless rigging, etc. It is also built cedar planked and painted white. The hull is of modern V-bottom type and is said to have shown excellent speed and has proved stiff and able.

A big line of smaller craft includes the 13-foot Kitten, a flat bottomed cat boat; the 12-foot Plover, a sharpie type with broad beam and simple knockabout rig; the 10-foot Tern; and the 7-foot Midget, the smallest practical sail boat for youngsters.

For the first time Cape Cod is showing its new line of Play Boats and Play Sails. The Play Boats, small and inexpensive, are four in number, designed for youngsters who are beginners, one being but 6 feet long, with others up to 8 feet in length. The Play Sails range from a square sail, patterned after a topsail on the famous clipper ship *Flying Cloud*, down to a lateen sail similar to those used on canoes.

The Cape Cod Company is continuing its line of skiffs, yacht tenders, dories, and other small craft which have built up the reputation of this well known firm.

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Wright-Built Boats

A FIFTEEN-FOOT Kohinoor one-design sloop is displayed by Wright-Built Boats of Dundee, N. Y. The boat is constructed with oak frames, white pine planking and Philippine mahogany deck and trim. The centerboard is of ⅜″ boiler plate and weighs 150 pounds. The boat is 15′ 3″ over all, 6′ 0″ beam and 6″ draft of hull. She carries 160 square feet of sail.

The Winabout Exhibit

ANYONE interested in small, well built but inexpensive sailing craft should not fail to visit the exhibit on the main floor of various models of Winabouts, offered by the New England Marine Co., of Boston, Mass. Designed and built by master craftsmen from "Down East," these little sloops, 16½ feet and 18 feet long, have proved to be fast, able craft, ideal for day sailing. They may be used anywhere that a rugged, able, fast one-design class is desired.

Winabouts carry a modern jib-headed sloop rig, are built either smooth-planked or lapstrake, and equipped with either galvanized or bronze hardware at varying prices, all quite moderate. The best of materials is used throughout and the workmanship and finish speak for themselves.

The 16½-foot Winabout, easily transported on a trailer, includes among other features copper fastenings, reinforced transom for an outboard motor, galvanized steel rigging, clear spruce spars, two-tone decks, brass sail tracks on mast and boom, sliding rudder fittings, adjustable gooseneck, etc.

The 18-foot Winabout gives luxurious comfort for a small boat, and racing performance. Ample beam and sound design make her stiff and able to negotiate really hard going. A unique feature of this craft is a portable cruising cabin, supplied at small extra cost.

The Down East Fisherman, open model, built by Cape Cod Shipbuilding Corporation

Cape Cod's Vee-16, a V-bottom centerboarder that is fast and able

Luders Marine Construction Company

THE Luders Marine Construction Company, Stamford, Conn., is exhibiting one of its standardized sail boats, a duplicate of those built for the Fishers Island Yacht Club where about a dozen of this type are raced throughout the season. The satisfaction obtained from this class has prompted the Luders Company to be in a position to make delivery of these boats on short notice.

The little craft is 26′ 6″ over all, about 16′ 6″ water line, just under 6′ beam, and draws 3′ 10″. She is rigged with 200 sq. ft. of sail, has 1500 lbs. of lead in the keel, and two watertight bulkheads.

These boats are practically non-capsizable and non-sinkable. They have small cabins with two pipe berths which are entirely satisfactory for Juniors on short cruises. The boats are built to the usual high standards of the Luders Company, with cedar planking, mahogany deadwood and oak frames. They have given a good account of themselves in all sorts of weather and are smart sailers.

The Winabout, 18 feet over all, a trim knockabout shown by the New England Marine Co.

Kermath Gasoline and Diesel Engines

BESIDES redesigning and improving every engine of its comprehensive line, Kermath is exhibiting five brand new models. The Kermath Sea Cub is a small, compact 4-cylinder 2⅝″ by 3″ engine developing from 10 hp. at 1000 r.p.m. to 25 hp. at 3000. It is designed for the smaller boats and for auxiliaries. Its length, in the direct drive model, is but 28 5/16″ and 32 3/16″ with reduction gear.

Then there is the Sea Flyer, a 6-cylinder engine of 3¼″ bore and 4⅛″ stroke, developing up to 85 hp. at 3000 r.p.m. Its weight is 645 pounds. The crankshaft is heavy and is fitted with seven main bearings, following the Kermath tradition. Accessories are individually driven, the generator being actuated by an enclosed belt with an outside tension adjusting arrangement. This drive eliminates inertia shocks, permits smooth running and, from the position of the unit, assures better ventilation. The engine is pressure lubricated and may be installed at any angle up to 20°.

Another new Kermath is the Sea Captain, the same bore and stroke as the previous machine of this name, 4⅜″ by 5½″. It is built in a 65 hp. heavy duty and a 100 hp. medium duty model. It has been redesigned and improved and is new throughout. Like the Sea Flyer, it has the enclosed belt-driven generator which is generally incorporated in the Kermath 1936 line.

Another brand new engine not previously shown is the Sea Rover. This is a conservative cruiser type motor similar in makeup to the well known Kermath Sea Queen model and with the same general characteristics. Its bore is 4″ and the stroke is 4¼″, the piston displacement being 320 cubic inches and the horse power rating 95 at 2800 r.p.m.

The Sea Mate is continued with improvements. It is 4¼″ bore and 4½″ stroke and piston displacement of 383 cubic inches. It develops 90–110 hp. This model also carries the improved belt drive for the generator, enclosed and fitted with a simple adjustment for varying the tension of the belt.

In addition to the gasoline-driven engines, Kermath is showing two popular priced, compact, smooth running, 6-cylinder light Diesels. These are the 6-260 and the 6-288 Models which are rated 60 to 85 hp.

Lehman Ford Conversions

MANY improvements are noticeable in Ford Models A and V-8 conversion equipment as furnished by the Lehman Marine Engineering Co., of Newark, N. J., for its stationary power unit. The V-8 conversion includes a special oversize radiator and fan assembly, which will cool the motor when pulling a 50 hp. load at 1800 r.p.m. under continuous 24 hour use. This stationary unit is also available without radiator or fan, with marine type water pump and water-cooled manifolds, for use aboard yachts and work boats. New refinements include Joe's reverse gear, reduction gear, rotary gear water pumps, etc.

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A Murray & Tregurtha Fuel Oil Motor

OF PARTICULAR interest in this year's exhibit by Murray & Tregurtha, is the Model OCX-6 6-cylinder fuel oil engine, equipped with the Shore Carburetor-Manifold System. A number of engines of this type have been installed in heavy boats during the past two years, including a Coast Guard Patrol Boat and a United States Lightship.

This fuel oil engine is not of the Diesel type, but is similar in every respect to a standard gasoline engine with the exception of the processing equipment. The Shore Carburetor-Manifold is of novel design, which insures thorough processing of the fuel before it enters the cylinders.

Of considerable importance is the fact that this engine can be started on the same fuel that is used for running, and in general can be operated in the same manner as an engine using gasoline. It offers, of course, the obvious advantages of reduced fire hazard and economy of operation due to its use of fuel oil in place of gasoline.

Another feature in the exhibit of this 44-year-old company, is its well-known Model K-6, a 6-cylinder, 325 hp. gasoline engine especially designed for commuters, high speed cruisers, and large fast runabouts. The U. S. Coast Guard recently purchased a number of these for its new 38-foot Picket Boats.

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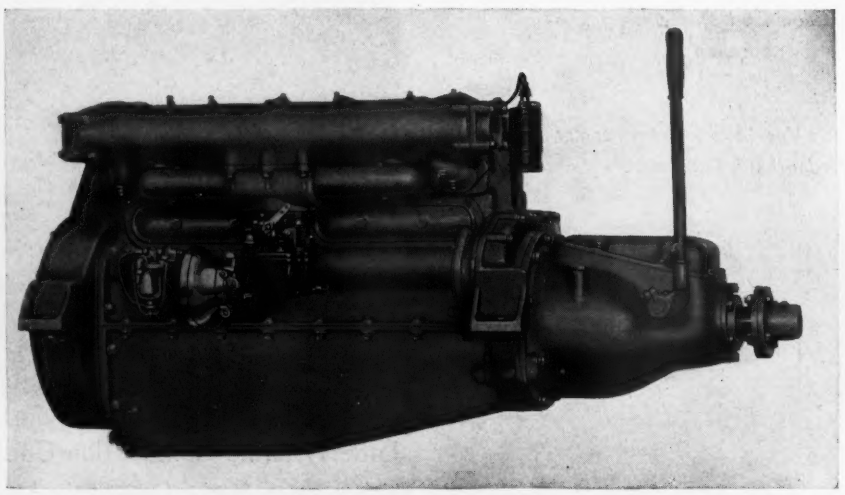
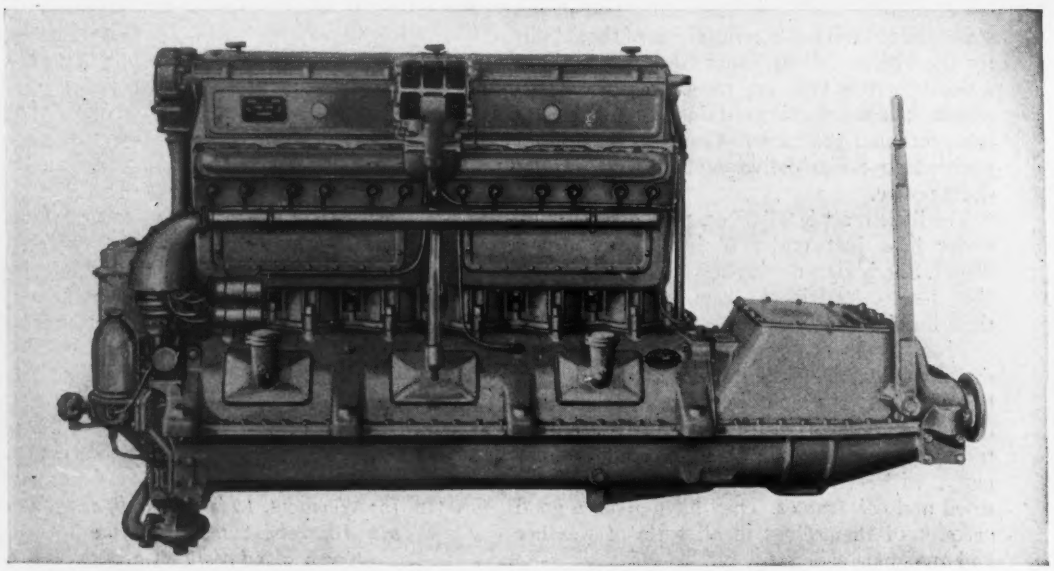
Red Wing Motors

"RED WING Thorobred" is a name that inspires confidence. For the sound of it gives the impression of strength, reliability, and beauty of design which the engines themselves fulfil.

This year the Red Wing Motor Company (Red Wing, Minnesota) is exhibiting at the Motor Boat Show not only its regular line of Thorobred gasoline engines, but two fuel oil engines, the Comet and the Hesselman. The





The 1936 Kermath Sea Rover, rated 95 hp. at 2800 r.p.m., is a clean-looking job

At left, the Murray & Tregurtha Model K-6, 325 hp. gasoline motor

Comet is a compression ignition (full Diesel) type, while the Hesselman is a moderate compression, spark ignition engine.

The Comet is being exhibited for the first time, the engine on display being the 75–100 hp. size. It is a 6-cylinder, 4-cycle engine with normal speeds up to 1500 r.p.m. for steady running. It measures only 67½ inches over all (for the direct drive type) and weighs only 2000 pounds, that is, about 20 pounds per horse power.

The Hesselman for 1936 has a new design of cylinder head which holds the injectors and spark plugs at an angle within the cup-shaped pistons. This has resulted in considerable increase in power, as well as in the elimination of spark plug fouling.

Both Comet and Hesselman engines are now equipped with a specially designed thermostat which automatically maintains the engine operating temperature at the correct level to give the most efficient results.

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A Bolinders Diesel

THE chief exhibit of the Bolinders Company, Inc., New York City, is a Bolinders 100 hp. W7 marine engine for heavy duty service. This engine makes an exceptionally fine installation for service requiring medium weight combined with exceptionally rugged construction. Another engine is a 20 hp. W3 solid-injection Diesel complete with reverse gear, which is particularly adapted to use as an auxiliary for sail boats, or as a power plant for main propulsion of launches and similar craft. Also on display is a 5 kw. Diesel generator set for use on larger yachts for electric lights, charging batteries, etc. Other features of the exhibit show the construction of Bolinders' unusual crankshaft with its SKF roller bearings, and also the special needle bearing connecting rod which, together with the crankshaft, gives Bolinders engines their high power per pound of weight without excessive speeds.

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Palmer Marine Engines

A RECORD of thirty-five years' experience in building marine engines gives one confidence in the saying: "When Palmer says it's right, you know it's safe to use."

This is particularly significant this year because Palmer Bros. Engine Co., Inc. (Cos Cob, Conn.) is exhibiting at the Motor Boat Show a gasoline engine which runs on fuel oil! Gasoline engines have been run on fuel oil before this, and Palmer Brothers have been experimenting for several years in order to overcome the defects inherent in the type, the most serious of which have been crankcase dilution and excessive carbonization.

Palmer engineers now present an engine which, with its new principle of "Charge Stratification," they say can satisfactorily use commercial fuel oils. Essentially this new principle simply divides the cylinder charge into two parts, a lean mixture or charge, and a rich one. The lean mixture enters the cylinder first, followed by the rich mixture during the same stroke. By this method of timing and mixing, crankcase dilution is practically eliminated, and carbonization minimized.

This new engine is the Palmer conversion of the Ford B-4 cylinder motor adapted to marine use. It is practically the same weight and size as the same engine using gasoline, and costs but very little more. In practical operation it is started on gasoline, run for a few minutes until warmed up, and then fuel oil replaces the gasoline.

It goes without saying that the exhibit also includes many of the well-known standard Palmer engines; and there are attractive descriptive booklets which may be taken home for your reference library.

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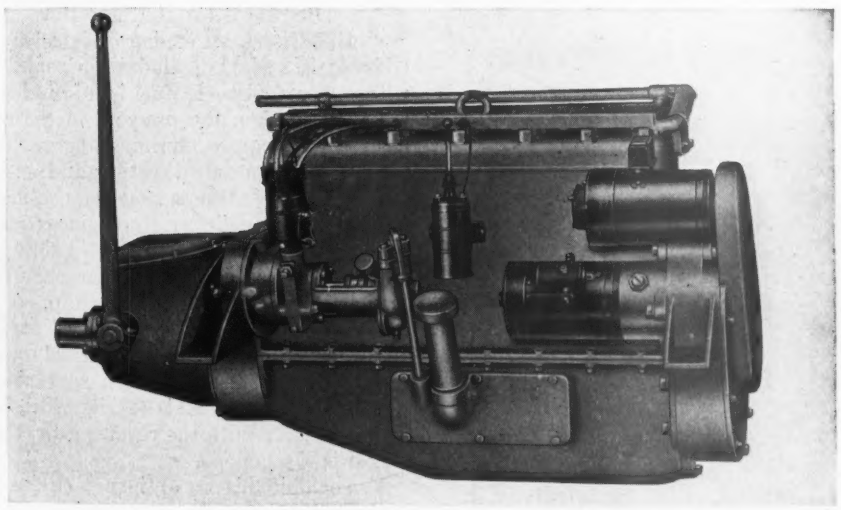
Speedway Engines

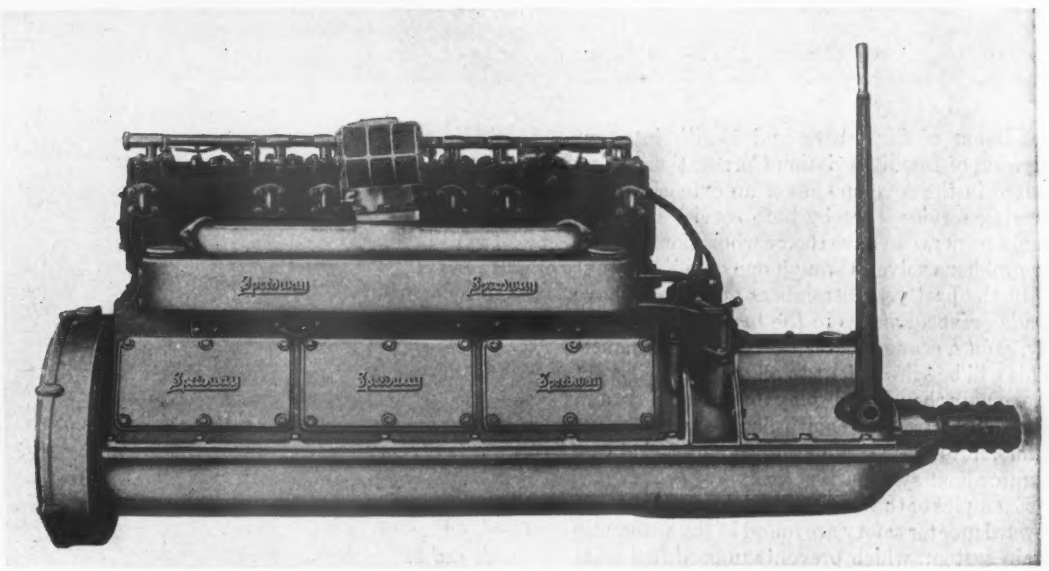
ON THE mezzanine is the engine exhibit of Consolidated Shipbuilding Corporation, a Model MC Speedway marine engine. This is a 6-cylinder 5¾" bore by 7" stroke gasoline engine developing 250 horse power at 1725 revolutions. It is of the L-head type and is built in both right and left hand models, designed for speeds from 1400 to 1800 r.p.m. Cylinders are cast in pairs, of a special grade of iron, with the heads also cast in pairs. The frame is a single casting of aluminum, deep and strongly webbed. Pistons are of aluminum alloy, with six rings. Connecting rods are drop forged of chrome-nickel steel, with the upper ends bushed with phosphor bronze for the wrist pins, which are case hardened and ground and of the full floating type. Crankshaft is of special heat treated steel with a bearing between each pair of cylinders and fitted with steel counterweights at each crank.

Clutch and reverse gear are of the Speedway design. Lubrication is pressure system. Fuel pump is of the roller type. Two ignition systems are fitted — a two spark distributor and a single spark distributor. Starter is of the Leece-Neville two unit 12-volt system.



Another Kermath is the Sea Flyer, of 205 cubic inch displacement, rated 85 hp. at 3000 r.p.m.

At right, the Speedway Model M C gasoline motor, 250 hp.



Hall-Scott Adds a Diesel

THE Hall-Scott Motor Car Co., a division of American Car & Foundry Co., is exhibiting not only five models of its well known lines of gasoline motors, but a new Hall-Scott Diesel motor of its own design which is fully up to the high standards always associated with Hall-Scott products.

The new Diesel is of the 4-cycle type, with cylinders of 5″ bore and 6″ stroke, and is rated at 120 hp. for continuous service. It is equipped with Hall-Scott reduction gear of either 2:1, 3:1, 5:1 or 7:1 ratios. With the various gear ratios, the new motor will be adaptable to boats requiring propellers up to 60 inches in diameter.

The Hall-Scott display of gasoline models contains the following:

1 Fisher Jr.
1 Invader, direct drive
1 Invader, with reduction gear
1 Explorer
1 Navigator II, with reduction gear.

These engines range in power from 35 hp. to 275 hp.

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A Fine Showing by Stromberg and Zenith

THE names Stromberg and Zenith have long been synonymous with the best in carburetors and other marine attachments. The consolidation of Stromberg and Zenith into one division of Bendix Aviation Corporation has resulted in the development of an extensive engineering service whereby both service men and yacht owners can have their carburetion troubles or problems solved through one organization.

In the past year Stromberg and Zenith have made great advances in the matters of reliability, safety, economy and all-round performance. This will be self-evident to all those who inspect the comprehensive display of Stromberg and Zenith carburetors, Zenith flame arresters, fuel filters, automatic drain systems and sealed carburetor float system.

Examples of the strides which have been made toward greater safety are found in the automatic drain system, which prevents unused fuel from seeping into the bilge, and the completely sealed float mechanism, which keeps gasoline where it belongs in rough weather. The Zenith flame arrester, already used as regular equipment by many well-known marine engine manufacturers, is rapidly becoming recognized as a worthwhile shipmate. Zenith fuel filters also contribute their share to safety and reliability by keeping water and dirt out of the carburetor.

Among the engine manufacturers at the Show who will display Stromberg and Zenith products are Buda, Chrysler, Gray, Kermath, Lathrop, Lycoming, Palmer, Scripps, Sterling and Universal.

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USL Batteries

A FEATURE of the exhibit of USL Battery Corporation is its new Power-Sealed Linkless Battery, just announced. This battery has no exterior connections except the necessary terminals, the cells being connected, each to each, inside of the battery. There are no projections above the covers except the vent-filling plugs which are, of course, of rubber. Complete insulation is thus provided. The charge cannot be lost through shortcircuiting by misplaced tools or metal, nor can there be any loss due to water on top of the battery. The entire top may be cleaned by wet brush or cloth.

The sediment space is deep, so that sediment need not be removed during battery life, and increased acid space above the plates means that water need be added only at long intervals. The plates are the standard USL manufacture.

USL also features an improved Diesel engine starting battery which introduces improvements in design and construction. In Diesel service the demand on the battery is severe, the current requirement ranging from 300 to 1600 amperes. The necessary voltage must be supplied no matter how low the temperature may be. The type 3-SRD-21 and 4-SRD-21 are representative of the improved batteries for this arduous service.

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Kohler Generators

KOHLER Co., Inc., of Kohler, Wisconsin, is showing three electric generator sets. The feature of the exhibit is a new model 10 kw. 110-volt battery charging plant, run by a 4-cylinder oil engine, providing safe, economical and smooth service with minimum weight and over all dimensions. The 1½ kw. marine type 32-volt battery charging plant is one of the most popular for average yacht requirements. The 110-volt AC full automatic plant operates standard AC motors and appliances.

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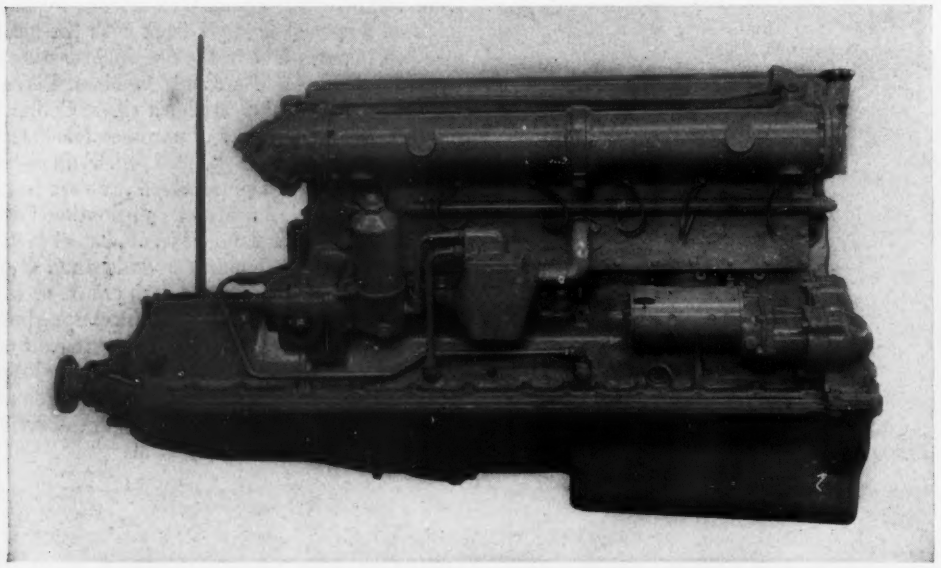
The Hill Balanced Diesel

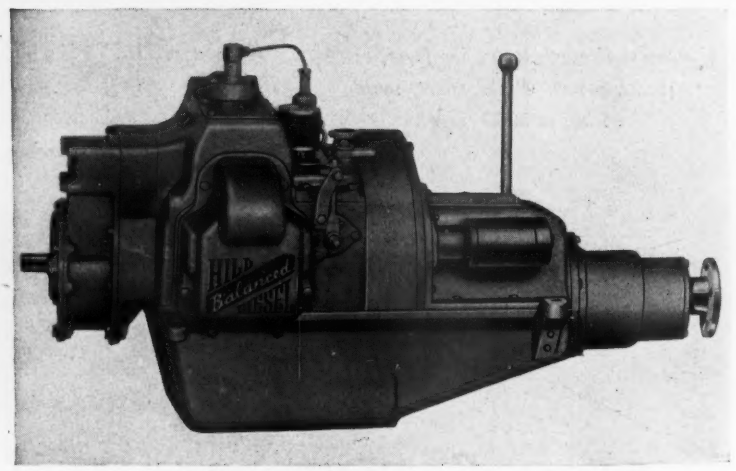
ON DISPLAY for the first time is a new Hill-Diesel, an engine designed by R. E. Olds. It is a single cylinder horizontal engine with opposed pistons. Fuel is injected between the pistons when the pressure in the cylinder has reached the predetermined figure. The pistons travel in opposite directions and actuate the shaft through rockers and connecting rods. Having but one cylinder, the engine requires but a single injection pump. The Hill single orifice nozzle and Hill precombustion chamber are used as is the Bosch injection pump.

The engine is 2½″ bore and 3½″ stroke. Its rated power is 10–15, the normal operating speed being 1200 r.p.m. with a maximum of 2000. Its length over all is 24″, its width 25″ and its height 22″. With the reverse gear, the total weight is 475 pounds.

Also exhibited is one of the new engines direct connected to a 5 kw. generating outfit, all mounted on a sub-base and complete with radiator and fan. The weight of this set is 800 pounds.



Exhaust side of the Hall-Scott Invader 6-cylinder, direct drive motor



The new Hill Balanced Diesel opposed-piston motor, rated 10–15 hp., is but 24″ long, 25″ wide and 22″ high

Fairbanks, Morse & Co. Present Improved Diesels

FAIRBANKS, MORSE & CO., of Chicago, have a comprehensive exhibit of their well known line of Diesel motors on display, which include the following:

Single cylinder Model 36-A-5½ engine combination auxiliary unit, comprising an air compressor, circulating pump and auxiliary generator.

An 8-cylinder Model 36-A-5½ marine engine with twin disc reverse gear.

A 4-cylinder Model 36-A-4¼ Diesel engine with direct connected generator for marine auxiliary service.

A 6-cylinder Model 36-A-4¼ Propulsion engine with twin disc reverse gear.

A 6-cylinder Model 35-E-8¾ two cycle direct reversing main propulsion engine.

A 6-cylinder 5″ x 6″ opposed piston engine.

The latest improved Fairbanks-Morse Diesels offer characteristic Diesel economy and safety, combined with high speed, light weight, and reliability. Simplicity of design and construction, with a minimum of moving parts, are noteworthy features. Skilled workmanship and the modern and complete manufacturing facilities, together with the use of materials of high grade all contribute to the success of the many Fairbanks-Morse Diesel engines in all classes of marine service.

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Federal-Mogul Propellers

A REMARKABLE propeller exhibit is on display at the New York Motor Boat Show in the space occupied by the Federal-Mogul Corporation, of Detroit, manufacturers of Trupitch and Equi-Poise propellers.

Chief among its features is a large collection of either the originals or exact duplicates of all Federal-Mogul racing wheels with which new power boating records have been made during the past few years. This exhibition of wheels will include those of Gar Wood's *Miss America X*, George C. Reis' *El Lagarto*, Victor Kliesrath's *Hotsy-Totsy*, Jack Rutherfurd's *Jay Dee III* and of many other famous racing craft.

Interesting design and performance data is available on each wheel, making the exhibit a sort of clinic on propeller design.

As a further attraction, there is on display an actual working exhibit of the company's stroboscope equipment which, by means of accurately synchronized lights, "stops" the motion of the fastest-moving propeller and permits observation and study of it as if it were actually motionless. Many interesting principles of propeller design, including the compensation of thrust distortion by means of centrifugal action, as exemplified in Federal-Mogul Equi-Poise propellers, are illustrated.

A third feature of the exhibit is the Federal-Mogul Oil Control Detector, which visualizes the effect of worn engine bearings on oil pumping.

The Federal-Mogul exhibit is located in space No. 8, third floor, facing the elevators and the north stairway.

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Scripps Exhibits Complete Line of Motors

THE eight models shown by Scripps Motor Company, of Detroit, Mich., have been selected as being the most representative of the complete line manufactured by this concern. The engines displayed are the Model F-4, a 4-cylinder medium speed engine developing from 25 to 53 hp.; the Model 152, a high speed Six of 143 to 169 hp.; Model 154, a medium speed Six of 75 to 110 hp., fitted with reduction gear; Models 204 and 205, 6-cylinder medium speed engines of 114 to 153 hp.; Model 302, a V-type 12-cylinder high speed engine developing from 242 to 304 hp.; and Model 42, a V-8 of 93 hp. which is a conversion of the Ford V-8. There is also a portable power unit direct connected to a generator.

The Scripps F-4 is a compact 4-cylinder, 3¾″ by 5″ engine, long a favorite as power for auxiliaries. The medium duty model may be had with 2:1 reduction gear and has been improved so that correct fuel and lubrication are provided even though the boat be heeled at an extreme angle.

The Model 152 is a Six, 4¼″ by 5¼″, developing 169 hp. at 3000 r.p.m. It is popular for medium-size fast hulls and smart runabouts. Model 154 has the same bore and stroke and is rated 110 hp. at 1800 r.p.m. It is a cruiser type engine of compact size and is fitted with Morse reduction gears of either 2:1 or 2.43:1 ratio. The propeller shaft may be either above or below the center line of the crankshaft.

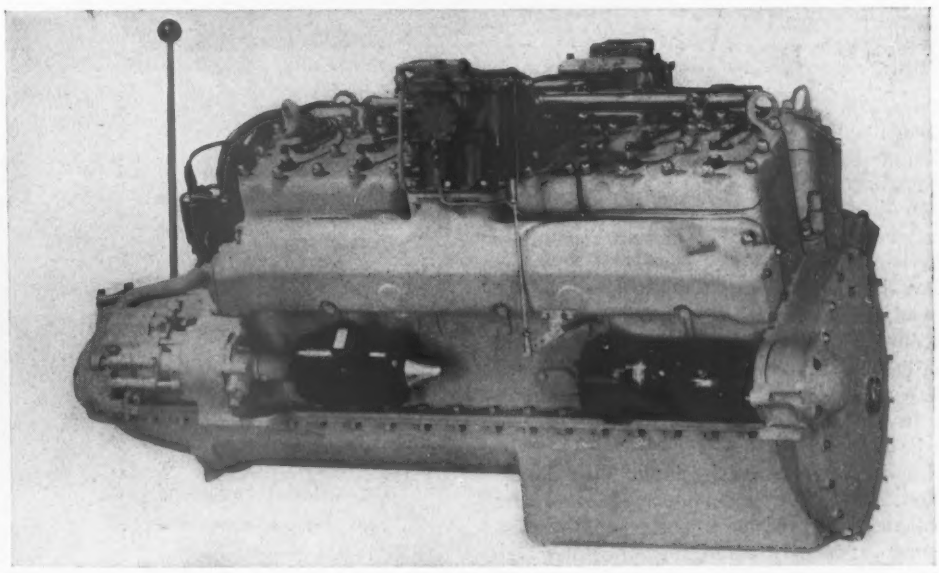
Models 204 and 205 are medium speed, left and right hand 6-cylinder engines, of 5″ bore and 5¾″ stroke, developing 114 to 153 hp. at 1800 r.p.m. The two models show the simplicity of matched left and right hand engines for twin screw installations. They are of symmetrically opposite construction and rotation and their firing order is identical.

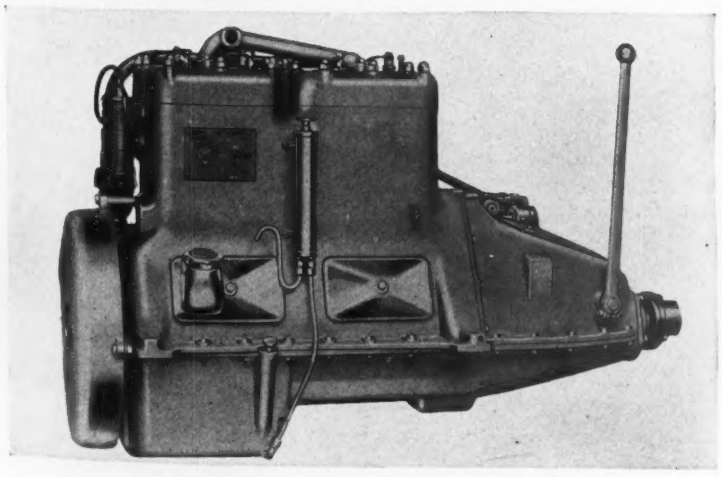
The Model 302 is a V-type, 12-cylinder, 4¼″ by 5¼″ engine, rated 304 hp. at 2400 r.p.m. Cylinder blocks and cylinder heads are cast in pairs. Ignition system is dual and supplies two synchronized sparks to each of the twelve cylinders. The full automatic type distributor eliminates extra controls. The engine is compact and accessories have been placed for the convenience of the operator.

This 12-cylinder engine is used both here and abroad for powering fast runabouts, custom commuters, cruisers and schooners, in single and twin installations.

Model 43, the Scripps conversion of the Ford V-8, is 3 1/16″ by 3¾″ and 221.07 cubic inches piston displacement. It is available in both direct drive and with 2.12:1 reduction gear. Conversion parts are typically Scripps in design and application.

The portable power unit with 25 kw. generator is one of the Scripps Ford conversions mounted on a rigid channel frame. It is portable, self-contained and designed to operate wherever there is a dependable water supply.





The Scripps Model 302 V-12 high speed motor delivers 304 hp.

For auxiliary use, where space is at a premium, the Scripps Model F-4, 53 hp. motor has proved popular

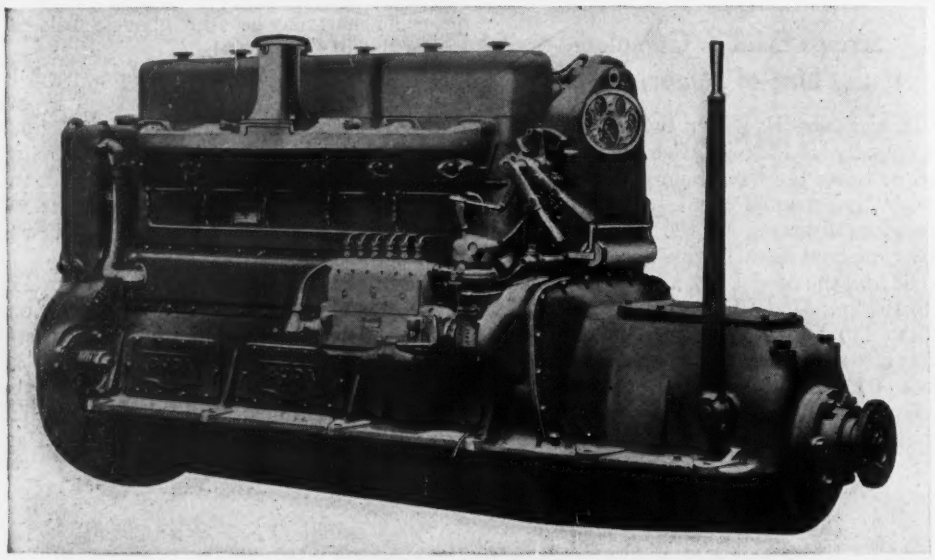
The Buda Exhibit

GASOLINE and Diesel engines are on display at the booth of the Buda Company, of Harvey, Ill. The gasoline engines are the Models HM-205 with reduction gear, the HM-298, the JM-231, the KM-428 with reduction gear and the LM-525.

The HM-205 is a 4-cylinder engine of 3 13/16" bore and 4½" stroke with a piston displacement of 205 cubic inches. The HM-298 is a 6-cylinder 3¾" by 4½", 298 cubic inches displacement. Model JM-231 is also a Six, 3½" by 4" and 231 cubic inches piston displacement. The KM-428 is a 6-cylinder engine, 4⅜" bore and 4¾" stroke. It is fitted with a reduction gear. The LM-525, another 6-cylinder engine, is 4½" by 5½" and 525 cubic inches displacement. These new gasoline engines are now known as Buda Silver Crown Marine Engines and they have been completely remodeled to meet the requirements of modern marine service. A new cooling system with a double-drive water pump has been developed, the manifold design has been changed to include cleanout plates for greater ease of maintenance and new cleanout hand holes in the crankcase improve accessibility. Wide mountings in the smaller models make for ease of installation.

The Buda Lanova Diesel will also be exhibited. This has a cylinder head which increases turbulence and produces better combustion. The mean effective pressure of this engine is high yet the maximum pressures are not over 625 pounds to the square inch. The compression ratio is about 12½:1. Injection nozzles are of the pintle type and are readily removable for inspection. Cylinder liners are removable and the large crankshaft has seven main bearings of the steel backed babbitted type. Valves are of large diameter, of silichrome steel, and valve seats are replaceable. Lubrication is force feed to all parts, pressure being supplied by a triplex pump, and a dry sump system is used. Oil coolers and filters are provided. Cooling system is of the two-current type with specially designed water pump.

The reverse gear has a double clutch drive gear, mounted in an oiltight housing, and is equipped with ball bearings and lubricated under pressure. A self-centering cone clutch on the forward end locks tightly to the crankshaft.



Atlas Imperial Diesels

WITH the mounting interest in Diesel power for yacht propulsion, the exhibit of the Atlas Imperial Diesel Engine Co., of Oakland, California, is an education in the modern development of this type of power plant, with no less than four up-to-date models of Atimco engines ready for inspection by showgoers. These models range in size from a little 2-cylinder 18 hp. engine up to the big 6-cylinder model rated at 160 hp., with two 4-cylinder models of varying horse power in between.

The 6-cylinder 160 hp. model is of the direct reversible, four cycle, mechanical injection type, having enclosed oiltight crankcase, full pressure lubrication and overhead valves. Each engine is rated for continuous service at its normal speed, but will develop from 10 to 20 per cent above rating on Prony brake test under atmospheric conditions pertaining at or near sea level. Starting is by compressed air with pressure as low as 125 pounds. The constant pressure type of fuel system is used, and fuel consumption is kept down to a minimum.

The first of the two 4-cylinder models has cylinders of 6" bore and 8" stroke, and is rated at 85 hp. at 950 r.p.m. and 90 hp. at 1000 r.p.m.

The second 4-cylinder motor has cylinders of 4¾" bore and 6½" stroke, and is rated at 45 hp.

The 2-cylinder model, just perfected during the past year, is rated 18 hp. at 950 r.p.m. Its cylinders are 4¾" bore and 6½" stroke. It is, like all other Atimco Diesels, of 4-cycle type.

The reputation of Atlas Imperial Diesels, for excellence of design, materials, construction and performance, is well known, and the new models, with latest improvements, are sure to attract those interested in Diesel power.

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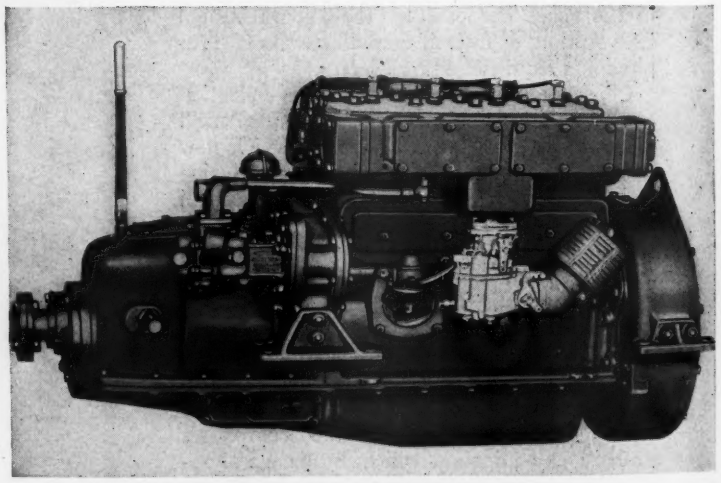
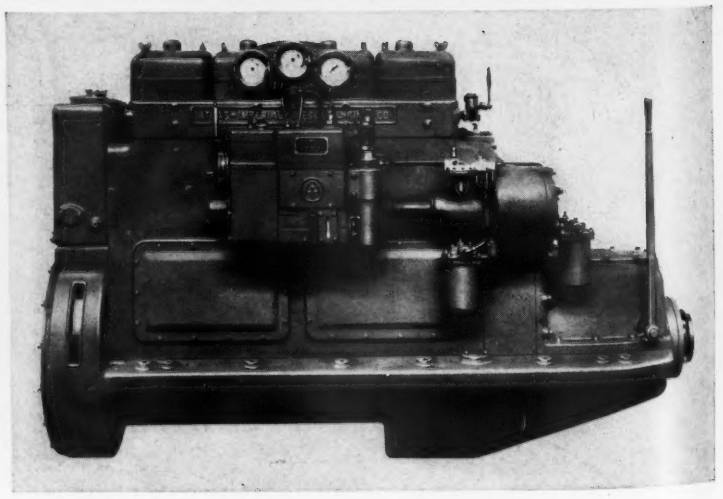
Hyde Windlass Company

UP ON THE third floor of the Grand Central Palace is the exhibit of the Hyde Windlass Company of Bath, Maine. In this display are a few of the company's enormous stock of propellers. These are two- and three-blade wheels, both right and left hand, in many variations of pitch and diameter. The company's stock on hand covers propellers from 8" to 66" diameter and its patterns include wheels up to 22' diameter.



The new Buda Lanova Diesel. Horsepowers run from 55 to 180

The Buda gasoline model HM-205, 4-cylinder motor, without reduction gear. The displacement is 205 cubic inches



Four-cylinder, 6 inch by 8 inch, 85 hp. Atlas Diesel engine

Also shown is an assortment of stuffing boxes, stern bearings, struts, quadrants, tillers, pillow blocks, flange couplings and bronze and steel shafting. Windlasses, winches, boat hoists, steerers, etc., are also manufactured by this old, established concern.

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Lycoming Marine Engines

A COMPREHENSIVE line of 4-, 6-, 8-, and 12-cylinder marine engines is being offered by the Lycoming Manufacturing Company, Williamsport, Pa., for 1936. One of the feature engines is the Model UHE, a 6-cylinder 223-cubic-inch racing engine developing 155 hp. with 87 octane fuel. Among other records, this engine has driven a 225-cubic-inch hydroplane (1 mile) at 63.548 m.p.h.

All the 4-cylinder models are 119-cubic-inch piston displacement, having a bore of 3⅛″ and a stroke of 3⅞″. The new 6-cylinder series known as Model UH direct drive, and the UHD reduction gear drive, have a bore of 3 1/16″ and a stroke of 4¾″, with a total displacement of 210 cubic inches.

The Model UC, direct drive, and the Model UCD, reduction gear drive, straight eight engines are particularly adaptable for cruiser installation. These engines are characterized by a low over all height of only 19¼″ above the center line of the crankshaft.

The Model UF 325 hp. engine has 12 cylinders with a total displacement of 1010 cubic inches. This engine embodies all the custom features which a purchaser normally would expect to find in a "made to order" product.

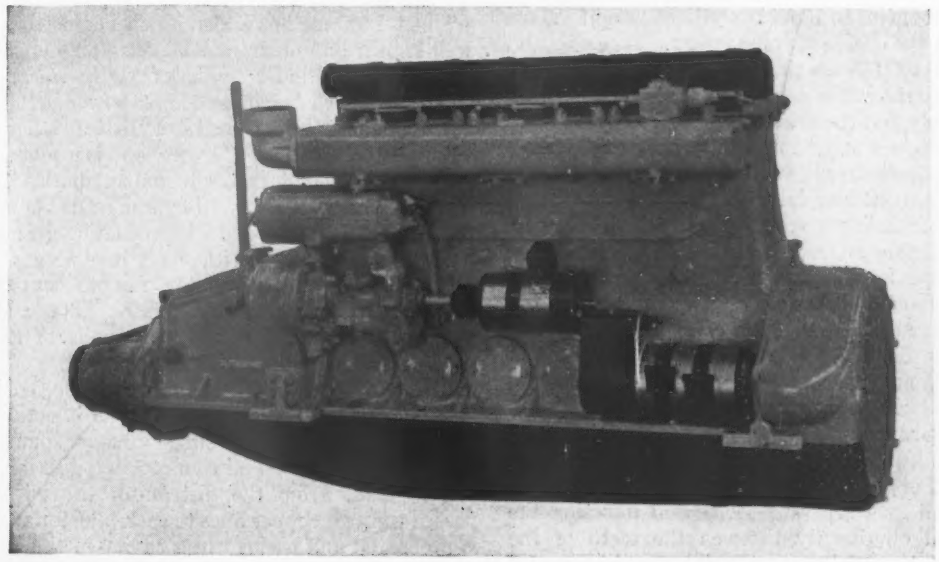
Superior Diesels

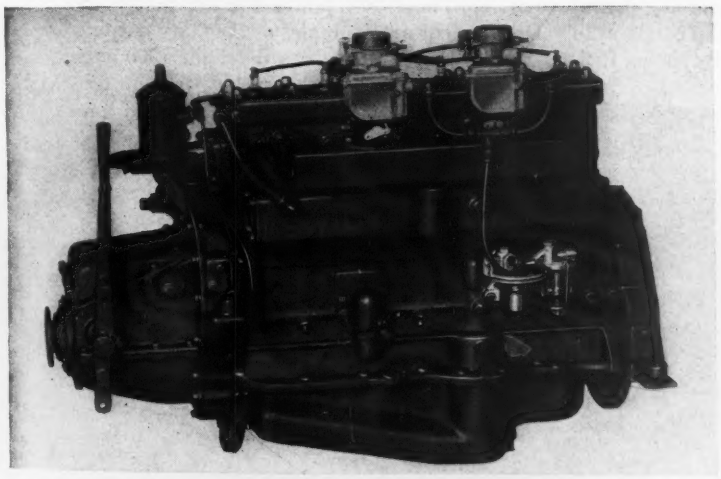
THE National Superior Company, of Springfield, Ohio, is showing a comprehensive line of high speed Diesel marine engines and electric generating sets. Among them are new engines, including a straight eight, built in right and left hand models and developing 150 hp. at 1800 revolutions. There is also a 9″ by 12″ engine rated 260 hp. at 600 r.p.m.

The high speed Diesel engines are of the solid injection cold starting type. They are 4½″ bore and 5¾″ stroke. Built in 2-, 4-, 6- and 8-cylinder models, they cover a power range from 20 to 150 hp. Their construction is rugged — the crankshaft is 3½″ in diameter and is counterbalanced — cylinder sleeves are of the wet type and replaceable, pistons are fitted with six rings, and combustion takes place at low pressure. The marine engines are compact and light in weight.

Each one of these Diesels is also built with an electric generating set in sizes from 10 to 100 kw. Generator and engine are mounted on a single cast iron bed plate.

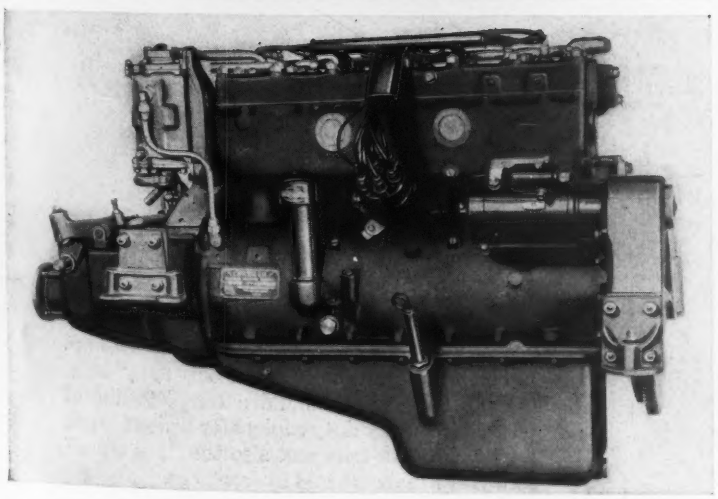
The larger 9″ by 12″ engine is similar in design to the smaller sizes, accessible, smooth running and with massive crankshaft. The company also manufactures Diesels of cylinder sizes 7″ by 9″, 9″ by 12″, 11½″ by 14″, 12½″ by 15″ and 14½″ by 18″ in 3 to 8 cylinders.





A National Superior solid injection, cold starting, high speed Diesel

The Lycoming 6-cylinder, 223-cubic-inch racing engine



The Chrysler "Crown" straight drive motor has 241.6 cubic inches displacement

Chrysler Marine Engines

THE 1936 line of Chrysler Marine engines, shown on the mezzanine floor of the Palace, consists of the Ace, Crown, Royal Eight and the Majestic models. These are built in either direct drive or with reduction gears of two ratios.

The Ace is a 6-cylinder 3⅛″ by 4⅜″ engine rated 43 hp. at 1600 r.p.m. and 73 hp. at 3200. Besides the complete engine shown, there is also displayed a cutaway model of the Ace, with reduction gear and all the working parts in operation.

The Crown, shown in the straight drive model, is a 6-cylinder engine of 3⅜″ bore and 4½″ stroke. Its piston displacement is 241.6 cubic inches and its horse power is 53 at 1600 revolutions and 93 at 3200.

The new Royal Eight, shown at the Palace for the first time, is an 8-cylinder 3¼″ by 4⅞″ engine developing 67 hp. at 1600 r.p.m. and 115 at 3200. This engine replaces the original Chrysler Imperial. It has two up draft carburetors and its height is low. It is shown with 2½:1 reduction gear.

The Majestic, displayed in the straight eight type, is also an 8-cylinder machine. Its bore is 3½″ and its stroke 5″. Piston displacement is 385 cubic inches and the power is 97 at 1600 and 152 at 3200 r.p.m.

Chrysler engines are built in either right or left hand rotation and with deep or shallow oil pans. Two sizes of reverse gears are manufactured, the smaller on the Ace and the Crown, the larger on the Royal Eight and the Majestic. Reduction gears in either 2:1 or 2½:1 ratio are available.

Sterling Engines

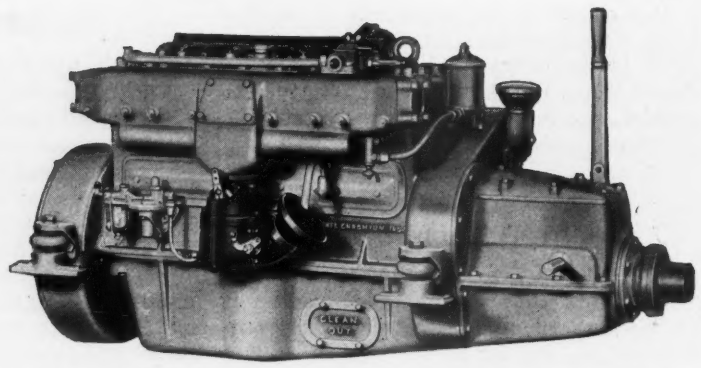
IN BLOCK W, on the mezzanine floor, is the exhibit of the Sterling Engine Company, of Buffalo, N. Y. Here are shown a Dolphin Special Six which develops 300 hp. at 2000 r.p.m.; a Dolphin Eight, 300 hp. at 1500 r.p.m.; a Coast Guard Six, 225 hp. at 1200 r.p.m.; a Viking Six, 425 hp., and an Eight, 565 hp., both at 1200 revolutions; a Petrel Six, 225 hp. at 2150 r.p.m.; a Petrel with 3:1 reduction gear and sailing clutch, 180 hp. at 1800 r.p.m.; a CD-435 oil engine, new model, and a sectional engine of the same model, driven by an electric motor; also the Sterling angle drive gear, 1¼:1 ratio, complete with cooler.

One development in Sterling engines is the employment of moderately light weight valves. With the engine running 2000 r.p.m., each valve seats 1000 times per minute. The heavier the valve, the stiffer the spring required to close it quickly and the greater the impact on the seat. The lighter weight Sterling valves and springs make for longer life and valve grinding is necessary only at long intervals.

All Sterling engines employ high pressure lubricating system, with oil coolers and filters; multiple ignition system; dual carburetors, with drip pans and flame arresters; Sterling reverse gears and rolled steel forged flywheels.

The Sterling angle drive gear, the result of two years' development work, consists of two helical cut gears mounted on rigid alloy steel shafts running in ball bearings. The gear case is substantial to assure permanent alignment. All sound of gear operation is eliminated by cooling the oil in a separate cooler and injecting the cooled oil directly between the teeth of the gears. A special type of flexible coupling is used between the engine and the gear box. Modern developments in gear design and in gear cutting machinery assure perfect tooth contact and a quiet gear. Sterling, by the way, built perhaps the first gear boxes as far back as 1912.

The Sterling crankless oil engine is an opposed piston engine, the pistons working in horizontal cylinders. The outer ends of the pistons are closed and fastened to a yoke arrangement in which are mounted two ball and socket type thrust bearings. Two flywheels are mounted on the engine, one at each end. These are at an angle with the shaft and are called "inclined discs." The combustion pressure is applied to the disc through the ball and socket thrust bearings so that it turns the shaft. The action may be compared to that of a ratchet type screwdriver which revolves a screw through pressure on the handle.



The new Gray Marine motor for 1936, with individual porting. The three sizes are Six-51, Six-71, and Six-91, with, respectively, 200, 218 and 244 cubic-inch piston displacement

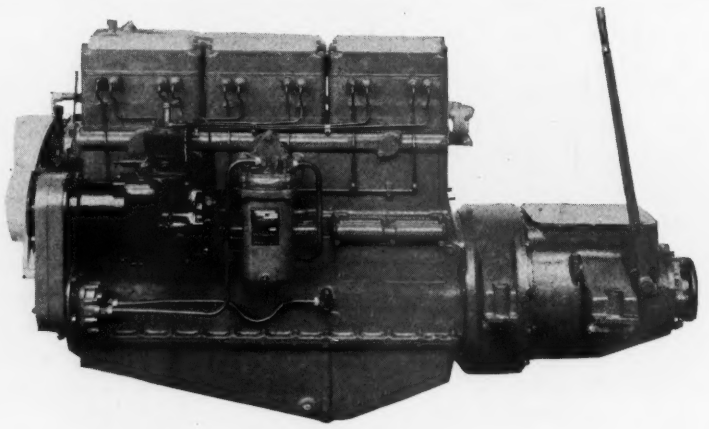
Cummins Diesels

THE Cummins Engine Company, of Columbus, Indiana, has added a new engine to its well-known line of marine Diesels. This is the AMR-6, a 6-cylinder engine of 3¾" bore and 5" stroke, which develops 65 horse power at 1900 revolutions. It was designed as a "little brother" to the HMR series (4⅞" by 6") and is intended for use in the smaller cruisers and auxiliaries. It is one of the smallest multi-cylinder Diesels on the market. It is supplied with reduction gear if desired and is fitted with Joe's reverse gear, lubricating and fuel oil filter, remote control starting switch, governor, instruments and special tools. Its weight is 1600 pounds. A 12-volt electric starting system is employed.

Cummins Diesels are of the four cycle, cold starting type and a low pressure fuel injection system, consisting of a single plunger pump which distributes fuel oil to a rotating distributor, is used. From the distributor the oil is passed through copper lines to each injector and is preheated and gasified in a cavity in the injector, a plunger in the injector forcing it into the cylinder. A Cummins fuel pump common to all cylinders assures uniform distribution of fuel.

Crankshafts and bearings are large; in the AMR-6 the main bearings are 3⅞" in diameter — larger than the cylinder bore. In the 4-cylinder models there are five main bearings and seven on the Sixes. Main and connecting rod bearings are of a new type steel-backed removable shell bearings.

AMR and HMR series are electric starting while the KMR, KOMR and LMR series are air starting. Cummins engines range from the AMR series to engines of 7" bore and 10" stroke, the LMR-6 developing 200 hp. at 800 r.p.m.



The 1936 Cummins HMR-6 Diesel motor is a remarkably smooth piece of work

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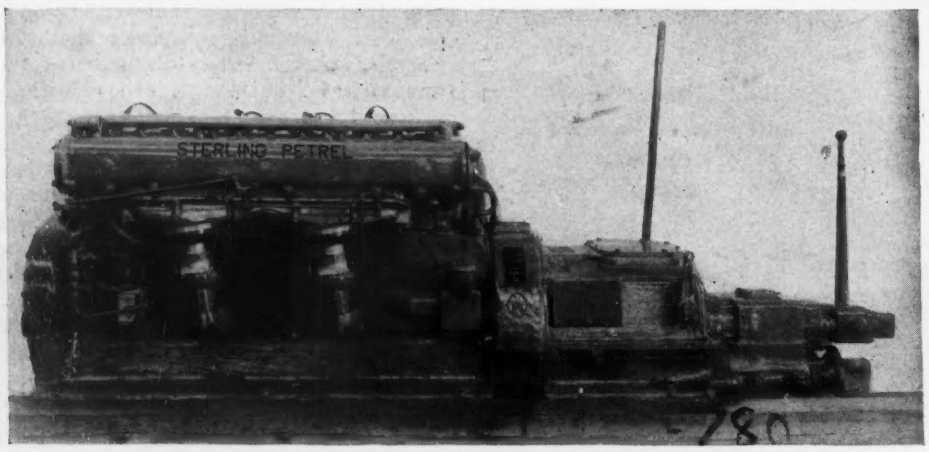
The Gray Line

ON THE 46th Street side of the mezzanine is found the exhibit of the Gray Marine Engine Company, of Detroit. One of the 28 Gray engines is displayed against a large panoramic background which illustrates many features of design, construction and equipment, and stresses many of the Gray features such as individual porting, Thermoset, power take-off pulley, etc. On the floor are examples of the Gray output.

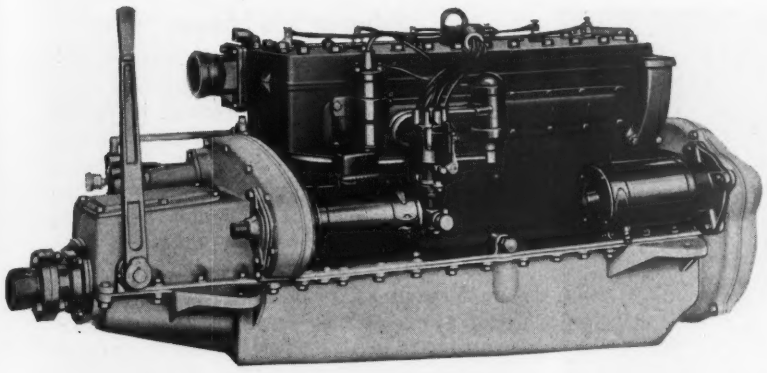
The "Six-51" is now a 6-cylinder 200 cubic inch 3½" by 4" engine developing 53 hp. at 2000 r.p.m. and 65 hp. at 2800. Its weight is 600 pounds, all iron, fully equipped.

The "Six-71" is now a 218 cubic inch 3¼" by 4⅜" six, rated 62 hp. at 2000 r.p.m. and 70 hp. at 3000. Both these engines are only 42¾" long.

Gray continues to build a complete line of medium to heavy duty engines for cruisers, work boats and auxiliaries and also the "Phantom" series for runabouts and hydroplanes.



Left. The Sterling Petrel motor with free wheeling clutch. It is also furnished with Morse reduction gear for lighter duty



Universal's High Speed Blue Jacket "Six" model ADS. 62 hp. at 4000 r.p.m.

Universal Announces Four New Models

KEEPING pace with the rapidly changing demands of boatmen and the boat building industry, the Universal Motor Company of Oshkosh, Wis., introduces four new models.

The Superfour has been completely re-designed into a more modern and a more efficient motor that is lighter in weight and 6 inches shorter over all. It develops 45 hp. (certified) at 3000 r.p.m.

The new High Speed Flexifour is also light in weight and exceptionally short coupled. It is a 4-cylinder, 4-cycle motor, less than 37 inches long over all and weighs only 394 pounds net. It develops 42 hp. at 4000 r.p.m.

For larger boats and faster traveling, Universal offers the new High Speed Blue Jacket Six, known as Model AFS-HI. It is an "L" head motor of 6 cylinders, and develops 62 hp. at 4000 r.p.m.

The new Blue Jacket Racer is a 4-cylinder 4-cycle motor built especially for racing service, and develops 75 hp. at 4500 r.p.m.

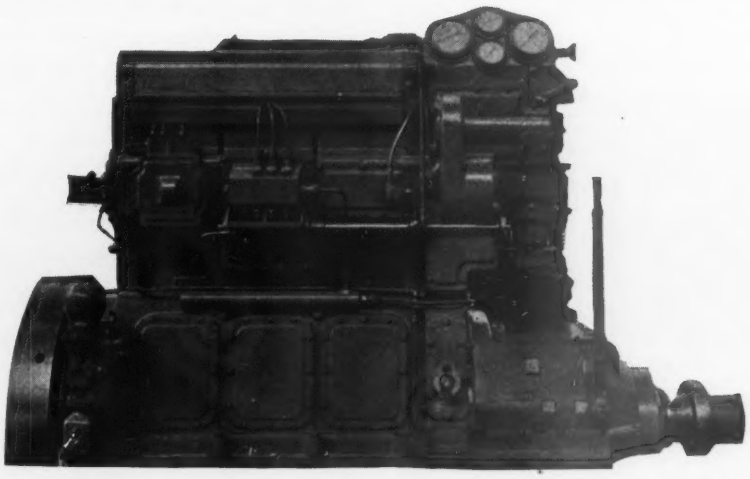
In addition to its line of marine engines Universal is showing "Sea Going Lighting Plants" which range all the way from a small, compact one-cylinder unit developing from 1 KW to 2 KW, to a 6-cylinder unit developing 10 KW. All these plants are equipped with waterproof windings, safety backfire traps on the carburetors, drip pans under the carburetors, and automatic governors to regulate speed.

Diesel Engines by Cooper-Bessemer

TWO recent additions to the well-known GN line of Diesel engines manufactured by the Cooper-Bessemer Corporation are exhibited at the Show. This concern has been building engines for more than a century and, in the last few years, has been developing its GN line. One engine on display is a 6-cylinder Diesel of 10½" bore and 13½" stroke, shown for the first time. It is equipped with a sailing clutch and is direct reversing. The GN engines are available in 3-, 4-, 6- and 8-cylinder combinations and are rated from 35 horse power per cylinder at 300 revolutions to 75 hp. per cylinder at 600 r.p.m. Installations in commercial schooners have been building a reputation for service at minimum cost for operation and maintenance.

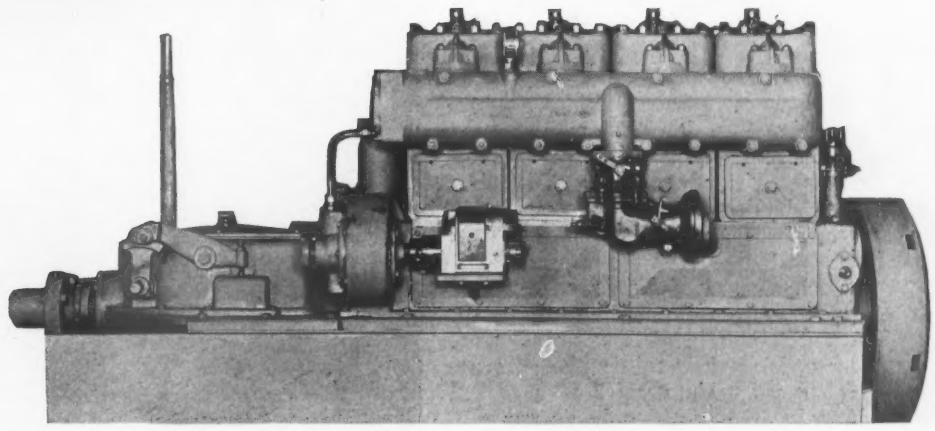
These engines have a number of attractive features, such as Diesel sturdiness in every part; steel through bolts connecting cylinder heads to the bases, putting the cylinder block and center frame in compression; cylinder liners securely bolted to the heads; crankshaft, connecting rods and bearings designed and built for heavy duty service; complete pressure lubrication to all working parts; patented wrist pin construction, for long life; patented atmospheric-relief constant pressure lubrication system.

The Type EN engine displayed is somewhat smaller than the GN and is of a size that should appeal to commercial fishermen. It is a 4-cylinder engine of 8" bore and 10½" stroke. This engine, with the 3-cylinder type, was developed during the year just passed. The units of the EN series are rated at from 25 hp. per cylinder at 450 r.p.m. to 40 hp. at 700 revolutions. Several units have been in service for some time.



Cooper-Bessemer marine Diesel, Type EN, showing full injector. Bore and stroke, 8 by 10 inches

Lathrop's new Engineers' Model, 75 hp., 4-cylinder gasoline heavy duty motor



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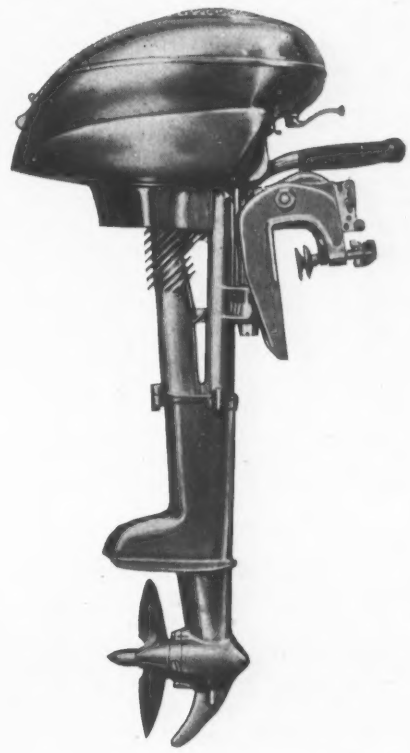
Outboards by Bendix

TWO new outboard motors are displayed by Bendix Marine Products Co., a subsidiary of Bendix Aviation Corporation. One is a gasoline driven outboard weighing but 19 pounds (22½ with tank filled) and built entirely of aluminum alloy with the exception of the gears,



Here is the new air-cooled outboard motor by Bendix Marine Products Co. Develops 1½ hp. and weighs 19 lbs.

crankshaft and the bronze connecting rod. With bore of 2 1/16" and stroke of 1½", piston displacement of 5.01 cubic inches, the motor has a speed range from 450 to 3750 r.p.m. and will develop from 1½ to 2 horse power. It is of the 2-cycle type, air cooled, and with rotary intake valve leading the gas through the hollow crankshaft to crankcase and cylinder, thence to a "no loss" underwater exhaust.

All moving motor parts are completely enclosed in operation, the hinged cover swinging open for cranking which is done by the conventional lanyard. Carburetor is by Stromberg and, it is stated, a high standard of reliability in starting and running has been attained. No mixture adjustments are employed other than a single, one-motion choke lever. Ignition is by 3-cell dry battery. Coil, breaker points and carburetor are all enclosed against rain and spray. A 16-vaned suction fan draws 450 cubic feet of air per minute through the top grille, discharging down and aft. Full rubber engine mounting isolates vibration from the boat and a new type tiller, with spiral spring core and live rubber grip, is fitted. The motor swivels through 90° and has a full tilting bracket. The driving angle may be adjusted inside the boat.

The other Bendix outboard is an electric affair weighing but 18 pounds and capable of driving a 12-foot skiff for seven hours at three miles an hour, on a single 100-ampere-hour storage battery. The entire driving unit is permanently sealed and is submerged, eliminating drive shaft and gears, with their housings and bearings, and pivots through 360°. All controls are centered in the steering head.

Three 6–8 volt storage batteries may be used in series, the higher voltages producing greater power and speed. A single 100-ampere-hour automobile storage battery, fully charged, will operate the motor for seven hours at high speed or from 14 to 20 hours at low speed. As a fisherman's motor, this new electric will run in silence at less than a mile an hour on the low speed range.

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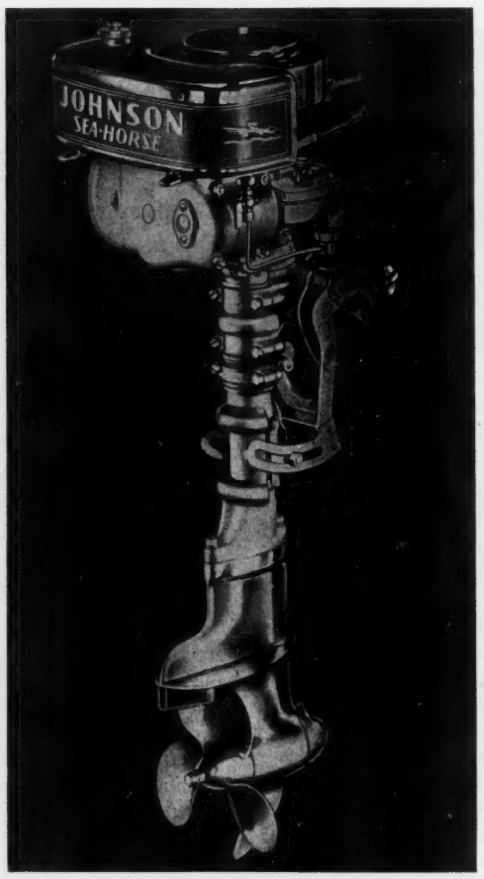
The Lathrop Exhibit

REPRESENTATIVE engines are shown by the Lathrop Engine Co. The largest is the Type 175 Mystic Model. With this are the 125 Mystic, the smaller Type 100 and the intermediate Type 150.

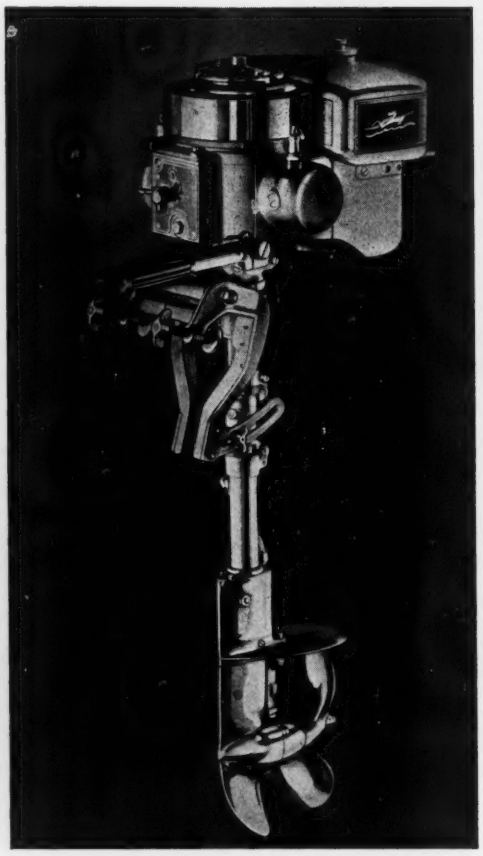
The newest development in the Lathrop line is the 75 hp. Engineer's Model, a heavy duty engine with refinements, using modern materials which permit higher engine speed and higher M.E.P. as well as great strength for long life. It is a 4-cylinder engine with cylinders and heads cast individually, upper crankcases webbed for strength and large handhole plates for accessibility. Crankshaft is 3" in diameter in the main bearings and 2½" at the pins. Camshaft is 2¼" and it, with the crankshaft, is drilled for pressure lubrication. The circulating pump runs at one-third the speed of the engine and is of the plunger type, with seats, valve and guides removable. The Engineer's Model is also shown in the 60 hp. size. This is the first time this model has been on exhibition.

A 40 hp. Standard Model is also on display as are three new conversion models known as the LH-4, LH-OC4 and LH-6. The two first are 4-cylinder models and the third a Six. These are light, high speed engines which may be had either in direct drive or with reduction gears.



The Johnson Sea Horse Model A-80 is an alternate firing twin that develops 4.5 hp. at 4000 r.p.m. It weighs 48 lbs.

Below. The Model 300 Sea Horse outboard has a number of refinements. Its horse power rating is 3.7 at 4000 r.p.m., and its weight 37 lbs.



Johnson Sea Horses

THE entire line of Johnson outboard motors is on display at the Show. It includes seven motors, all redesigned and refined in details since their last public showing. The smallest is the Model 100, a light single-cylinder motor which develops 1.7 N.O.A. brake horse power at 3300 revolutions. It is the lightest Sea Horse ever built, weighing but 24¾ pounds.

Model 200 is a light twin with much the same characteristics as its predecessors for the last fifteen years. It has, however, been brought down to date in all its parts. Pressure-vacuum cooling, slow trolling speed, float feed carburetor with throttle control, underwater exhaust, and so on, are features of this model.

Another light single is the Model J-80 which is known as the Little Aristocrat. This weighs 29¼ pounds and develops 1.7 b.hp. at 3300 r.p.m. It has full pivot steering, instant reverse, co-pilot, shakeproof handle, clutch for propeller protection, double-chamber muffler and new port, carburetor and manifold construction. It will run at trolling speed for long periods.

The Sea Horse Aero-Built Model 300 is much the same in appearance as its 1935 predecessor but it has aluminum cylinder blocks with Ni-resist sleeves pressed in, assuring long life and close fit of pistons. It has rotary valve and the synchro-control interlocks the levers controlling the throttle and spark advance. The muffler is of cast aluminum, water-cooled and of the double chamber pattern. The propeller shaft is of stainless steel. At 4000 r.p.m., the Model 300 develops 3.7 N.O.A. certified b.hp. Weight, 37 pounds.

Then there is the Model A-80 Sea Horse, an alternate firing twin cylinder motor developing 4.5 b.hp. at 4000 revolutions. A manually operated choke is fitted to the carburetor for better starting and the rotary valve is sealed in the crankcase. Fuel leakage is thus prevented.

Model K-80 is also an alternate firing twin which develops 9.3 N.O.A. certified b.hp. at 4000 revolutions. Its weight is 64 pounds.

For commercial small craft and for driving family runabouts, Johnson offers the Sea Horse P-80, the largest outboard in the entire line. This motor weighs 109 pounds and develops 22 N.O.A. certified b.hp.

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Five Elto Models

ON exhibition by the Outboard Motors Corporation is an exclusive line of Elto outboards, which embraces five basic models. Light weight, high quality and low prices are the basis of Elto's popularity. Built in both one- and two-cylinder models, the horse power range of the Elto line is from 1.4 to 21.1 hp., the weights running from 22½ lbs. to 105 lbs. All Elto power ratings are National Outboard Association certified brake horse power.

The Elto Ace is not only the lowest priced motor ever built by its makers, but is also one of the lightest, most portable outboards on the market. Developing 1½ brake horse power at 3500 r.p.m., it weighs only 22½ lbs.

The new Elto Handitwin will appeal to the boatman whose requirements demand a somewhat more powerful, low-priced, quality outboard. Equipped with flywheel magneto, this new Elto twin weighs only 29½ lbs. It delivers 2.5 hp. at 3500 r.p.m.

Experienced fishermen prefer a sturdy and rugged motor, capable of good speed in rough

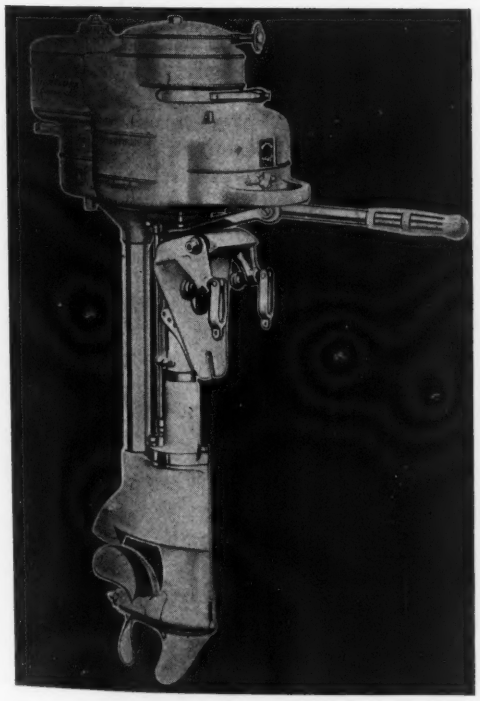
water, combined with dependability. The Elto Service Twin is offered to America's sportsmen with assurance that it has the capabilities required by even the most meticulous of Ike Walton's disciples. A 2-cylinder engine develops 4.3 hp. at 3500 revolutions and weighs but 43 lbs.

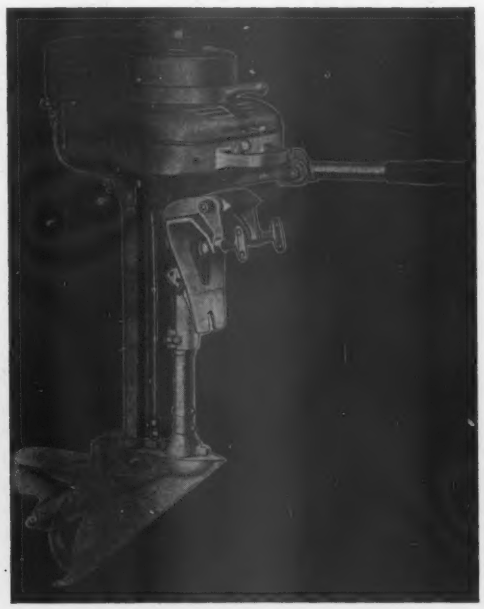
Except that it is equipped with efficient above-water silencer and weighs about 4 lbs. more, the Elto Reversing Service Twin is identical with the Standard model. The entire motor pivots, thus providing full maneuvering qualities.

The Speeditwin, a Class C motor, develops 21.1 hp. at 4000 r.p.m. and weighs 105 lbs. It may be had with built-in magneto or battery ignition. This model may be had with electric starter, increasing the weight by only 31 lbs.

The 1936 Evinrude Sportsman weighs only 24½ lbs. complete. "Hooded power" protects carburetor, ignition and entire power head

Below. The Evinrude Lightfour Imperial develops 9.2 N.O.A. certified brake horse power at 4000 r.p.m. Its weight is 59 lbs. Note the simplex starter





The Weedless Fisherman, with the same power head as the Standard Fisherman, pushes a boat through weeds and eel grass that would stall a husky oarsman

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Evinrude Outboards for Every Use

THE visitor to the exhibit of the Outboard Motors Corporation finds this year a complete line of these handy little power plants to meet every requirement to which outboard motors are adapted. The Evinrude line consists of eight basic models, including three popular racing motors and a new 32-pound Sportwin model to companion the Sportsman, which proved so popular last season. Modern "Hooded Power," quiet underwater silencing, and many new refinements serve to make the entire Evinrude line the "last word" in up-to-date outboard propulsion. The glistening aluminum hoods which cover the working parts of the motors and distinguish Evinrudes from other outboards have proved, in two years of service, to be as practical as they are attractive. In the quiet underwater exhaust by which the spent gases are noiselessly disposed of in the wake, the Outboard Corporation engineers have provided a refinement which will be much appreciated by everyone who uses one of these motors. The medium and large sized Evinrudes are floated in mountings of live rubber which absorb the vibration and prevent any pulsation reaching the hand of the operator while steering.

The full line of Evinrude models is as follows:

Model	*Weight Lbs.*	*Cylinder*	*Hp.*	*Revs. (Per Min.)*
Sportsman	24½	1	1.5 at	3500
Sportwin	32	2	2.5 "	3500
Fisherman	46	2	4.4 "	3500
Weedless Fisherman	48	2	4.4 "	3500
Lightwin	42	2	4.7 "	3750
Lightwin Imperial	49½	2	5.0 "	4000
Lightfour Imperial	59	4	9.2 "	4000
Sportfour Imperial	90	4	16.2 "	4000
Speediquad	135	4	31.2 "	4000

The last two models may be had with electric starter.

The three racing models are:

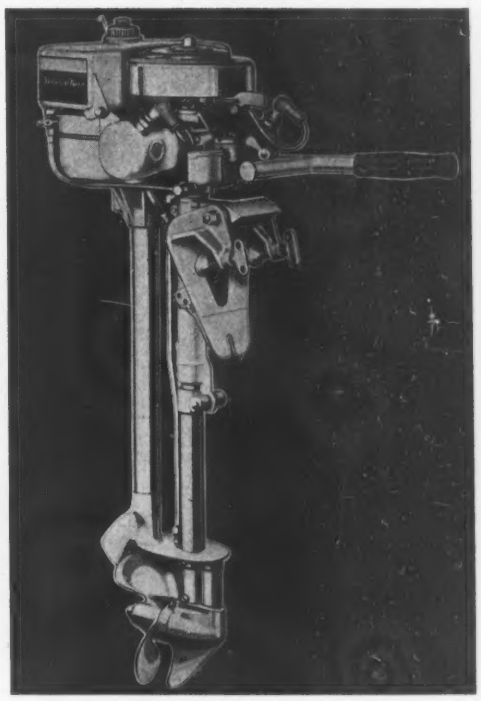
Midget Racer	37½	2	6 at 5000
Racing Speeditwin	..	2	30 cu. in. piston displacement
Racing "460"	..	4	60 cu. in. piston displacement

An all electric outboard motor weighing but 57 lbs. is also included in the Evinrude line.

For those deeper boats sometimes found in salt water or on the larger lakes, Evinrudes are supplied with shafts 5 inches longer than standard, at a small extra charge. The Lightwins and the Lightfour can also be supplied with 15-inch longer shafts, as frequently required for sailing boats. A special bracket converts the Fisherman into an ideal auxiliary engine for yachts.

The Elto 1936 Ace develops 1½ N.O.A. certified brake horse power at 3500 revolutions. Its weight is 22½ lbs.

Below. The Elto Service Twin is a rugged, high power outboard for husky boats. Its power is 4.3 at 3500 r.p.m. and its weight is 43 lbs. It is fitted with bronze lower unit



Exide Batteries

EXPERIENCED yachtsmen know that only a specially-designed and specially-built marine type battery will stand up and give satisfaction under the exacting demands made upon it in use aboard a boat. They know, too, that battery failure aboard a boat is not only an inconvenience, but can easily be dangerous. And marine service stations are not anchored along every mile of the route. Wherefore, yachtsmen turn to Exide batteries, manufactured for marine use by the Electric Storage Battery Co., of Philadelphia.

In designing and constructing the 1936 line of batteries, whether flat plate or Ironclad type, Exide engineers have kept in mind the particular and essential requirements which marine service imposes upon storage batteries. This means that users of 1936 Exide batteries are assured of the highest degree of dependability, the ability to deliver full rated capacities under the most strenuous circumstances, and the ability to give a maximum of dependable service under all conditions with a minimum of attention.

Visit the Exide booth, examine the Exide line, and find the why and the wherefore of the excellence of Exide batteries. There are complete batteries, and cut-away batteries. Obliging salesmen will explain the excellence of Exide design and construction so that a novice may understand why Exide is a leader in the battery field.

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Essomarine Exhibit Attracts

ESSOMARINE has started the new year in true nautical fashion with Dr. Seuss contributing another of his eccentric marine landscapes as a background for Essomarine products at the Motor Boat Show. The marketers of Essomarine oils and greases increased their space this year in order to present Dr. Seuss at his best. The S. S. *Essomarine*, Dr. Seuss' own idea of naval architecture, is the *pièce de résistance* among the sea serpents, mermaids, whales and devilfish which abound in the Seuss seas. The Essomarine photographer is also on the job to "shoot" all and sundry aboard the S. S. *Essomarine* in full admiral's regalia.

For the more practical boat-minded, R. B. Bedford, Jr., and his staff of Essomarine experts have a well appointed reception booth alongside where technical matters concerning motors and proper lubricants may be discussed. Also, Essomarine offers Old Captain Taylor's "Secrets of the Deep," an entertaining and enlightening piece of salty literature which should be in the possession of every motor boat owner. Those unfortunates icebound in Boothbay, mermaiding in Miami, or just too busy to get to the Show can drop a line to Penola, 26 Broadway, New York City, for a copy of this masterpiece.

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Topping Brothers' Boat Hardware

IN THE exhibit of Topping Brothers, ship chandlers of New York City, is a display of all sorts of things of interest to the yachtsman. A feature, for example, is the new Crosley Ice Ball refrigerator. Then there are the American Brake Shoe and Foundry Company's anchors, an assortment of Gould pumps, Cutless bearings, Norwalk joiner hardware, and the Dodge Cork Company's lifesaving equipment.

Rajah Spark Plugs

THE RAJAH Company, Bloomfield, New Jersey, manufacturers of the well known Rajah Spark Plug, is in a new location, Booth 16, at this year's Show. Rajah Spark Plugs engineered for replacement are now available for present-day high compression motors. Also on display is the Rajah Hand Crimping Tool which strips and crimps terminals to ignition cable. This tool is packed in an attractive metal box containing 250 distributor terminals and 253 assorted spark plug terminals.

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The Portable Light Company, Inc.

A VISIT to the exhibit of The Portable Light Company (New York City), located in booths 63 and 64 on the third floor, discloses a large and complete display of searchlights, horns, and sirens.

The new and powerful "One-Mile-Ray" and "Half-Mile-Ray" Streamline Searchlights, designed to conform to the latest trend of cruiser design, are of particular interest to yachtsmen, as is a specially designed and handsome Streamline Siren.

The Portable Light Company is notable for "Keeping up with the times," both in design and in the progressive improvement of its products.

Glass and China for Yachts

THE display of Ovington's, on the third floor of the Palace, is always one of the attractive spots of the Show. Here is shown a selection of the company's line of china, glassware and silverware for the large and small yacht. From cocktail sets to a complete dinner service with owner's pennant and club burgee reproduced in full color, Ovington's shows complete equipment for the dining table. The latest patterns of silverware, nautical lamps and shades for the yachtsman's den, ash trays and coffee sets — all handsome and well made — are on display.

The new 6-volt Exide storage battery designed for marine work. Left, the new 32-volt Exide Ironclad marine battery

Spherical Compasses, Speedometers and Radio Compasses

THREE of the outstanding achievements of recent years in navigating equipment are featured in the exhibit of the Kelvin-White Company. These are the Kelvin-White Spherical Compass, the Kenyon Marine Speedometer, and the latest models of Bludworth Radio Compasses.

The modern Kelvin-White Spherical Compass was developed in the precision laboratories of Mr. Wilfrid O. White. The spherical bowl which holds the compass card is completely filled with liquid, thus eliminating all horizontal swinging of the card. This is particularly important in rough weather as a steady card with minimum over-swing means straighter courses steered and consequent saving of time and economy of operation.

The Kenyon Marine Speedometer is the only device on the market that accurately measures speed and instantly shows speed variations. Invented by Theodore W. Kenyon in 1930, it has already been installed on hundreds of the finest yachts. It has come to be considered indispensable to successful racing. Moreover, it automatically checks the steering ability of every helmsman.

The latest models of the Bludworth Radio Compasses, which have been designed in various sizes to fit the smallest cruiser or the largest passenger vessel, also are on display, as well as a complete line of the famous Walker ship logs and depth finders.

Marine Stoves and Other Things by Willis

WHEN one cruises one must cook, and a well equipped galley contributes much to the success of a voyage, be it long or short. Wherefore, the new three-burner pressure alcohol stove shown by E. J. Willis Company, of New York, is worth investigating. These stoves are integral in themselves and can be stowed out of the way when not in use, as the tank, burners and body of the stove form a complete unit. The burners are of new design, produce great heat, and cannot be blown out by drafts.

Among the new articles of equipment for the boat found at the Willis booth is a rail stanchion, adjustable to any height desired, that is the design of "Porthole Pete" Chamberlain, who knows the needs of a boat of any type. Also, the Willis cabin heating system will supply a long felt want of those who cruise in the spring and fall when the nights are cold. An auxiliary generator, a diving helmet and many other items make the Willis exhibit attractive to the boat owner.

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Perkins Lamps and Stoves

THE Perkins Marine Lamp and Hardware Co. has a comprehensive and interesting exhibit of old and new items which the showgoer should not miss. Among the newcomers is the brand new Perko Alcohol Pressure Stove, said to be one of the safest and most desirable alcohol stoves on the market. The special feature of this stove is the fact that the fuel tank has no contact with the burners, being in the bottom of the stove, far away from heat. Then there is a new adjustable strut with Goodrich Cutless Rubber bearing, and an improved marine toilet, with larger pump, longer stroke, more water capacity, bronze fittings and large bowl.

Many styles and sizes of Perko lamps, lanterns and other desirable fittings are on display.

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Sands Marine Plumbing

ONE does not, necessarily, think of plumbing as one watches a yacht standing out to sea. But, rest assured, it is there; and if it does not work it's just too bad.

Their usual complete line of plumbing fixtures for yachts and other craft is being displayed in booth No. 128 by A. B. Sands & Son Company, New York City.

Sands products are excellent examples of marine plumbing fixtures and gadgets that work.

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Champion Sea Legs

THE International Nickel Co. is showing some champion "sea legs" at the Show. Among these are the Monel Metal shafts which drove the famous speedsters *El Lagarto*, *Betty V* and *Emancipator IV* to many hard-won victories in past seasons. Other items in International's display of Monel Metal include some large size shafts for work craft, some with tensile strength running in excess of 100,000 pounds per square inch, and a new line of Monel Metal water and fuel storage tanks, of welded construction, which are said to be rustproof, highly resistant to corrosion, and to have exceptionally high strength and hardness. In addition, there is a varied assortment of Monel Metal fittings and accessories.

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Tiebout Marine Hardware

THE FIRM of W. & J. Tiebout, pioneers in the marine hardware field in New York, specializes in equipment designed for Star Class and Snipe sail boats, and the exhibit this year is of great interest to owners of boats in either of those classes.

In addition to a general line of boat hardware, one of the new items presented by Tiebout this year is a 6-volt lighting plant for small yachts that is worth looking over carefully. Another novelty to be seen is a folding wooden boat ladder or gangway. This can be had in any desired number of steps, and when not in use may be folded up so as to occupy no more space than two of the steps. It can be opened up rapidly and is strong and of substantial build. It should prove a boon to the small boat owner who always has difficulty in storing a solid gangway ladder when under way.

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Starting and Lighting Equipment by Durham

THE P. J. Durham Company exhibit includes Marine Diesel starting and lighting equipment manufactured by the Leece-Neville Company and used by a large number of Diesel engine builders.

The Buell Marine Air Horn is shown as an example of an efficient warning signal apparatus, powerful and far-reaching, and in various sizes and models to suit the needs of purse and purpose.

The Electric Auto-Lite Company, for many years manufacturers of starting, lighting, and ignition equipment, is also represented at the Durham booth.

These, combined with the well-known Tenth Anniversary Model Autopulse electric pump, form the nucleus of an interesting display.

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Wilcox, Crittenden & Co.

THIS company's exhibit has been planned to help the boat owner find and see the gadget he is looking for, the one that will make his boat more comfortable or easier to handle. A complete assortment of marine hardware is on display with many new items and a number of the old ones redesigned to meet modern needs. In some cases, redesigning has made it possible for one fitting to do the work of two.

The Seaclo toilet has been improved and is shown with equipment for galleys and lavatories. All kinds and styles of pumps shown by Wilcox are manufactured with the requirements of marine service in view and built to stand rolling, pounding and vibration. W-C marine bilge, galley and lavatory pumps handle a surprising amount of water with little effort.

When the National Marine Lamp Co. was bought out and moved to Middletown four years ago, a program of improvement was commenced and has been carried on continuously. "Hurricane tested" marine lights resulted and these have been made more dependable than ever before. One light that will appeal to the sailor is new this year. It is a self-contained unit, complying with all the requirements of the law, yet containing neither oil nor wicks nor wires.

The Vac reverse gear control is shown again with new style head and valve. In this device, one lever controls both the speed of the engine and the reverse gear, convenient when working in a crowded anchorage.

For the windjammer there is a new line of yacht blocks, small boom-fittings and other gadgets and gilhickies. There are also blocks for wire rope, the sheaves made with a deep score and an alemite fitting.

An ingenious device that should appeal to every man who has an engine in his boat is the "Gas-Tector," which notifies the helmsman, at the turn of a switch on the control panel, whether there are any explosive gas fumes in the bilge.

The Wilcox-Crittenden "Gas-Tector" gives warning of explosive gas in the bilge. Right, a "no glare" electrically lighted binnacle, and a small globe storm light with pedestal by the same manufacturer

Non-Corroding Boat Fittings and Wire Rope

THE part that the newer alloys are now playing in the development of marine fittings is strikingly illustrated by the exhibits of E. J. Willis Company and Hazard Wire Rope Company. For here is to be seen a new and interesting line of boat hardware, designed by engineers who are familiar with boats. There are turnbuckles, cleats of various types, chocks, mast-partner plates that are adjustable, jib sheet blocks, mast tracks and slides, travelers, and all the rest of the hardware classed as boat fittings.

Of light weight, yet rugged in their construction, these new units are unique in that every surface, outer and inner, is highly polished so as to present the greatest resistance to corrosion. The surface finishes are not only mirror-like but, to the delight of the skipper, will remain so. It is claimed that no polishing is necessary, that the fittings will hold their gleaming finish indefinitely. An occasional wiping is all the care necessary.

This new line is the product of the Pressed Steel Company of Wilkes-Barre, Pennsylvania. The practical yet ingenious nature of the various items indicates that the firm has had much experience in the handling and fabricating of alloys. The line is remarkably complete for a new offering, and includes nearly every fitting needed for a sailing yacht. Development work on fittings for power boats has advanced to such a point that the manufacturers expect to make them available shortly.

On the whole, the new marine fittings being exhibited are conventional in appearance and styling. However, some of the details of design are highly interesting and show the results of extensive development work and collaboration on the part of the designing and shop engineers. While the fittings are undoubtedly lighter than older types, they have even more strength than their predecessors. This is made possible because to staunch construction is added the greater inherent strength of the new alloys.

The presentation of the new fittings is a natural sequence to Hazard Wire Rope Company's successful introduction of stainless wire rope. The new products are also a natural addition to the line of marine supplies furnished by the E. J. Willis Company.

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Cutless Bearing Demonstration

THE outstanding feature of this year's exhibit by Lucian Q. Moffitt, Inc., of Akron, Ohio, national distributors of Goodrich Cutless Bearings, is a unique testing machine showing several types of bearings in actual operation under typical service conditions. Thus, visitors to the Motor Boat Show may observe the actual effects of sand and grit on bearings and shafts — without getting their feet wet.

The machine consists of a tank filled with sandy water in which a shaft is operated by an electric motor. The shaft is carried in three different types of bearings, one of which is a rubber Cutless Bearing. A section of each bearing is cut away so that the condition of both shaft and bearing may be easily seen. The sand is prevented from settling by several motor-driven agitators placed along the sides of the tank. The purpose of this demonstration is to show how the rubber surface of the Cutless Bearing prevents scoring of the shaft by sand and other foreign material.

The exhibit also includes a full size model of the stern of a boat to illustrate the method of installing a bearing; and there is a complete display of various sizes and types of Cutless Bearings, showing them installed in stern castings and as separate units.

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Edward Smith's Paints and Varnish

EDWARD SMITH & COMPANY occupies, as usual, Booths 23 and 24 on the third floor of the Grand Central Palace, the space which they have occupied for a number of years.

The central feature of the booth is a moving display showing in scale models the boats using the well-known line of "Cup Defender Finishes."

The exhibit also includes two unusual pictures: one of the America's Cup yacht *Rainbow*, and the other of Gar Wood's *Miss America X*, together with a series of panels showing the different finishes which Edward Smith & Company manufacture for yachtsmen.

James F. McBride, Assistant Manager of Edward Smith & Company, is in charge of the booth, assisted by a staff of experts.

All yachtsmen and boat owners should stop at the Edward Smith & Company booth, not only to see the interesting display and panels, but also to discuss their finishing problems.

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Valspar Products

VALENTINE & Company, manufacturers of varnishes and colors, occupy Space 49–50 on the third floor. Here are shown the prize winning letters and photographs of the contest staged last year, as well as a number of interesting letters which were entered in the contest.

Giant panels, with water running over them, illustrate the waterproof qualities of Valspar products, and many new and unusual tests are under way. In addition, the company features its entire line of yacht finishes, a number of them shown on attractive models of various types.

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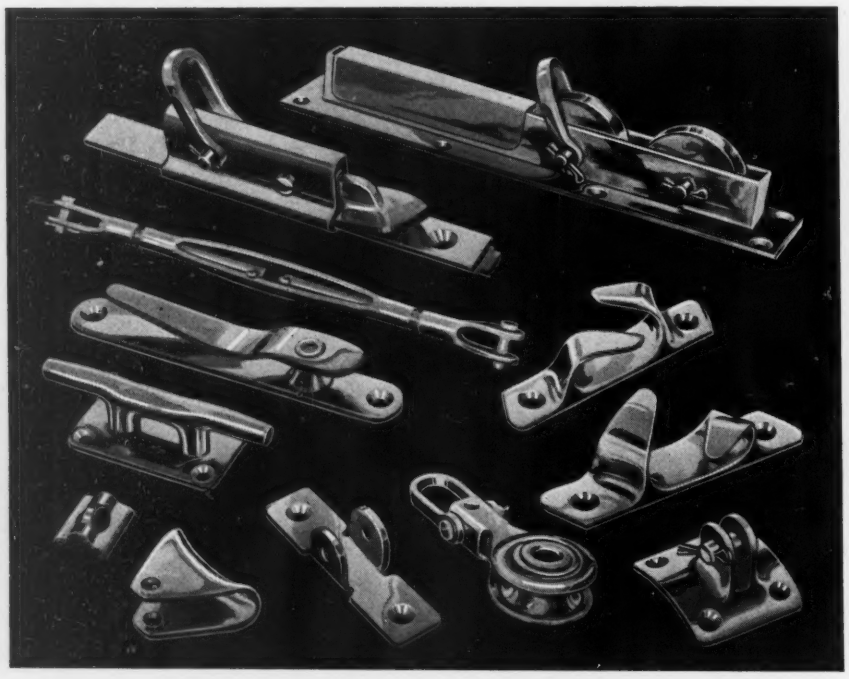
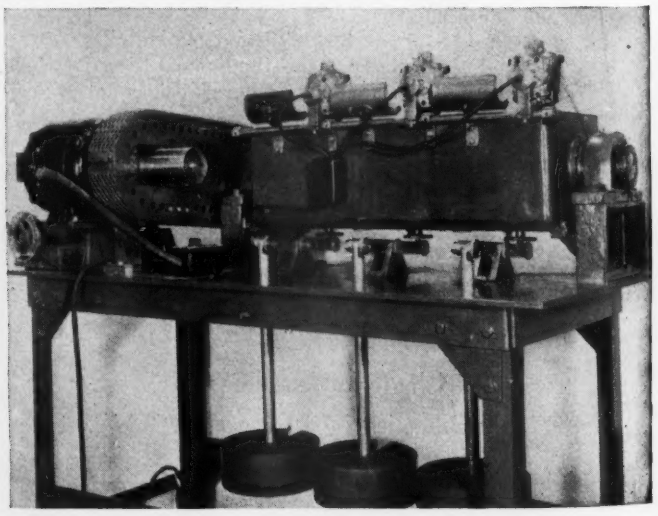
New Jersey Paints

PRODUCTS of The New Jersey Paint Works, Harry Louderbough Inc., of Jersey City, are too well known to need specific introduction. For years one of the foremost manufacturers of yacht paints, varnishes, etc., they grace the Motor Boat Show this year with new and interesting products, showing their progress since the last Show.

A. G. Fairweather is in charge of the exhibit, with capable assistants in attendance at all times to give information of any character in regard to paint and varnish work.

Many attractive and interesting products are on display, and the company will be glad to greet its friends and customers at its old booth, No. 32, on the third floor.



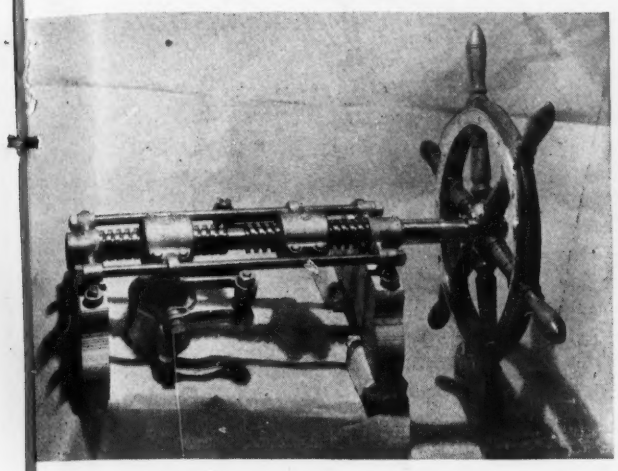


Goodrich Cutless Bearings are tested in this machine, shown by Lucian Q. Moffitt

Left, special non-corrosive sail boat fittings, made by the Pressed Steel Co., are exhibited by E. J. Willis and Hazard Wire Rope Co.

Right, a demonstration of Lux fire extinguishing efficiency at the booth of Walter Kidde & Co.

Below, a rugged bronze steering gear by Thomas Laughlin & Co.



Laughlin Hardware

SEVERAL new and interesting items have been added to the big line of marine hardware and fittings manufactured by Thomas Laughlin & Co. Among the newcomers is a hand-operated windlass for anchors weighing up to 100 pounds, fitted to handle both rope and chain. The wildcat is equipped with a chain release and positive foot brake, the whole affair being smooth in operation. Then there is a well designed, compact, rugged bronze steerer, suitable for boats up to about 45 feet long, adaptable for both inboard or outboard rudders, with vertical or inclined stocks. The steerer is so designed that the rudder stays in any position without pressure on the wheel. A new engine room and bilge ventilator, which provides forced ventilation while the engine is running, and has no moving parts, will interest both sailing men and power boatmen. All the old favorite Laughlin blocks and items of marine hardware are there, as well as new designs and improvements on some of the old blocks.

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The Woolsey Display

A COMPLETE line of paints and varnishes for marine use is exhibited by the C. A. Woolsey Paint & Color Co., of Jersey City, N. J. This company is a long-established manufacturer of fine marine paints, both for above water use and for bottom coatings. An interesting feature of the display is a series of test panels showing the anti-fouling qualities of Woolsey paints and the protection they afford from teredos and other marine pests.

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International Paint Company, Inc.

WITH factories in every part of the world, from Brazil to Canada, from Norway to Japan, International Paint Company, Inc., of Union, New Jersey, combines broad experience with sound reputation behind the products which bear the well-known four-bladed propeller trade mark.

This year, in addition to a complete line of yacht paints and similar products for use on board ship, it is presenting at the Show, for a nominal price, an interesting and instructive booklet, "The Painting of Yachts," which should prove of great value to all yachtsmen who are interested in keeping their craft up "shipshape and Bristol fashion."

There are new shades and finishes for decks, topsides, etc. And, in particular, a new Super Tropical Anti-fouling paint with unusual anti-fouling properties.

International Paint Company, Inc., is located at Booth 87 on the third floor of the Show.

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Unique Display by F. O. Pierce

AN EXHIBITOR with the sense of humor of Dewey L. Pierce of the F. O. Pierce Company of Brooklyn, "Makers of Fine Paints and Varnishes Since 1847," deserves to be quoted.

Mr. Pierce says: "There ain't much one can do with the 9x11 space but we are backing the business up with a large hunk of blue wood, some small sticks painted red that when put together spell 'Pierce,' a couple of cans, several battle scarred color panels, 14½ dead barnacles, a mangy rug, a couple of bottles of Scotch, two or three worn out salesmen, maybe a saleslady, myself (as usual full of pep), and one interesting thing, known as the model of the *H. C. Rickmers* torpedoed in the English Channel while dragging in something in the war, by a U-boat."

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Sea Steel Fittings

THE USE of stainless steel rigging and fittings is becoming more and more popular aboard yachts of all types and sizes. Among the best steels for marine fittings is Sea Steel, a non-magnetic solid chrome-nickel alloy over twice as strong as brass or bronze, manufactured by the General Alloys Co., of Boston. On display at the Show are numerous items of marine hardware and fittings made of this metal, such as cleats, turnbuckles, ship's bells, propellers, etc. Sea Steel products are either cast, forged or fabricated, the standard fittings having been designed by the George Lawley and Son Corporation, of Boston. Almost any marine fitting may be made to order.

Lux-o-matic Fire Extinguishers

SHOWGOERS should not fail to visit the booth of Walter Kidde & Co., Inc. For here is a particularly lifelike demonstration of Lux-o-matic fire extinguishing. A model yacht, sailing around in a circular tank, suddenly bursts into flames. By an ingenious use of Lux carbon dioxide gas, the fire is automatically extinguished, just as hundreds of fires aboard real yachts have been nipped in the bud and tragedies averted. Complete Lux portable system equipment is also shown, including protection of a type approved by the Board of Underwriters and the U. S. Steamboat Inspection Service for every size and class of yacht.

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The Texas Company

OPPOSITE the north bank of elevators on the third floor is the exhibit of the Texas Company, occupying twice the space it did last year. Most of this additional floor room has been devoted to the comfort of visiting yachtsmen and a number of settees have been installed to make the booth an inviting stopping place. The booth is attractively decorated in marine style and in the modern manner.

The story of Texaco's connection with the boating industry and the performance of Texaco products in important races during the season of 1935 is told in an arresting series of pictures.

Texaco's Waterways Service, Cruising Charts, Mail Ports and other services provided by the company are prominently featured. The handy Texaco cruising charts have been revised for the 1936 edition; and a new large scale chart, covering the Long Island area, is being prepared. Although these are not being distributed at the Show, they will be mailed to all who request them. Charts Nos. 1, 2 and 3, covering the Atlantic Coast from Maine to Florida, are ready while Nos. 4, 5 and 6, covering the Hudson River, the Great Lakes, and Long Island, will not be published until March 1st so that they may contain all the latest information. Application for them may be made during Show Week.

Representatives of Texaco's technical staff are on hand to assist yacht owners with their cruising, lubrication and engine operation problems.

The Smith-Meeker Display

NEW IN the exhibit of the Smith-Meeker Engineering Co. is the "Hydroil" oil purifier manufactured by Goulds Pumps, Inc. This house has developed a new line of hydroils, especially designed for oil. One of these will be shown with separate bowl and display table.

Then there are several sizes of generating sets, both gasoline and Diesel engine driven, manufactured by United States Motor Corporation. The gasoline engine-driven sets range from 150 watts to 60 kw.; the Diesel driven set is a 15 kw. unit with a 4-cylinder engine.

During 1935, the Homelite Corporation, of Port Chester, N. Y., has developed a line of water cooled Homelite plants which are shown in this display.

Besides these, there are Edison storage batteries, one of the new Smith-Meeker continuous current switchboards, and several small pumps and other accessories.

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Marine Glues by Ferdinand

WHEN L. W. Ferdinand & Company, one of America's oldest and most conservative makers of marine glues and allied products, decides on a change — it's news!

Ferdico at the Show this year greets its public in a new package — a tube, if you please. These new containers will probably be welcomed with open arms, because they are easier to handle and easier to use.

Three Ferdico products in this category are presented: Ferdico canvas cement, the special adhesive for canvas decks and cabin tops; Jeffery's C-quality liquid glue; and "Seam Filler," a filler that stretches and holds to planking.

It is an exhibit of interest to dealers as well as to boat owners.

Joe's reverse and reduction gears and, below, reverse gear, in bell housings for attachment to marine engines

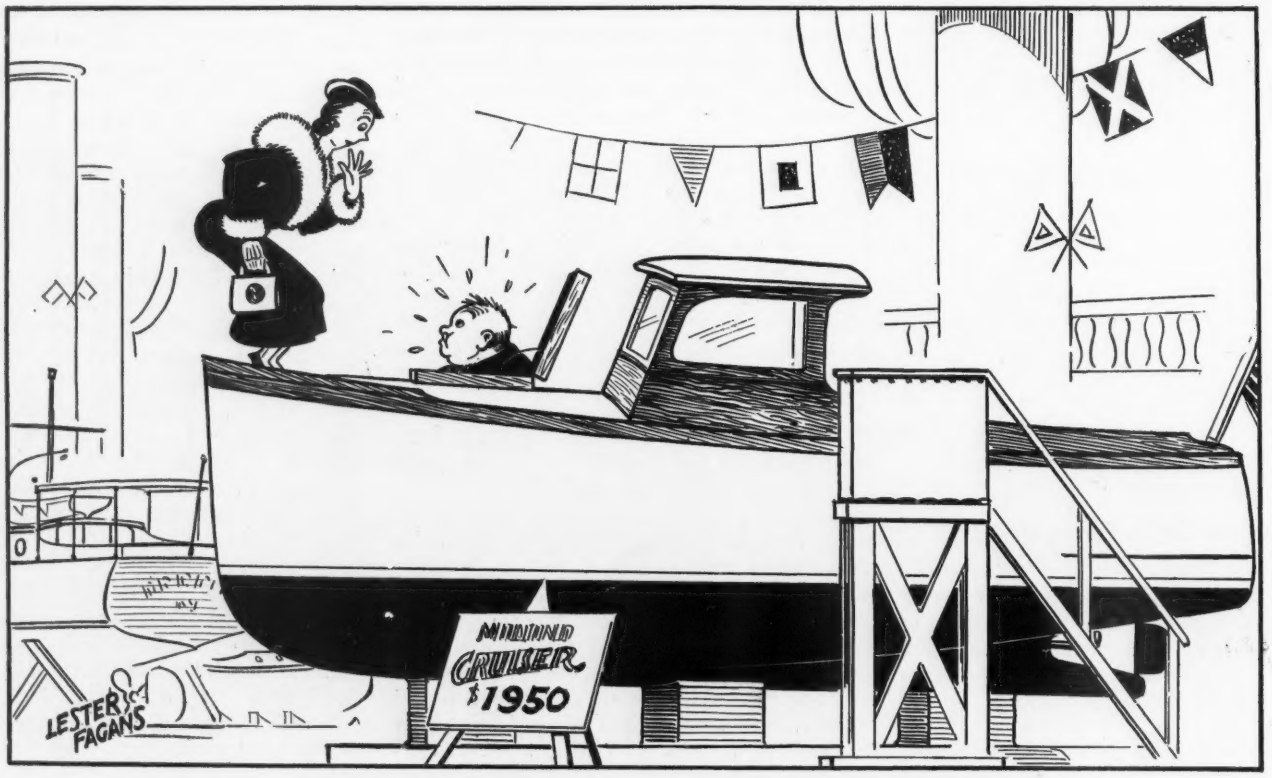
Joe's Gears

THE Snow and Petrelli Manufacturing Company, of New Haven, Conn., is exhibiting its line of Joe's reverse gears, popular for so many years. From the days of the "one-lunger," Joe's gears have kept pace with the advances in engine manufacture and the great increase in power and speed of rotation shown in the modern internal combustion engines. Today high speed, high power engines, both gasoline and Diesel, are being installed in boats of all types. Both cruisers and heavy work-boats require reverse gears and, in many cases, reduction gears, to operate at proper efficiency.

The engine manufacturer now not only extends the engine base to accommodate the reverse gear but arranges the after end of the reverse gear housing to take a reduction gear. This reduction gear, in its own housing, can be bolted securely to the after end of the reverse gear housing. If no reduction gear is desired, the after bearing and the thrust bearing are secured to the reverse gear housing. In certain installations, where there is no extension of the engine base to receive reverse and reduction gears, Snow and Petrelli furnish combined reverse and reduction gears (within certain size limits) enclosed in oiltight housings which may be bolted to suitable wood or metal bed pieces. The gear is then connected to the engine.

Another method is to mount reverse and reduction gears in bell housings. Snow and Petrelli furnish these, either with reverse gear alone or in combination with reduction gear. These reduction gears are made in 2:1, 2½:1 and 3:1 ratios and in sizes up to 12 hp. per 100 r.p.m. The gearing is helical, which insures strength, quiet operation, and durability; and the device is made from high grade materials throughout. Large ball bearings are fitted and the housings are oiltight and water jacketed to keep the gears cool under the most severe service.

"Old Man Joe" is prepared to answer any questions concerning reverse and reduction gears and other transmission gear problems.



"Well, dear, I guess we'll have to buy her — I can't get out of this cabin"

News from Yachting Centers

Sound Waves

By LEE SCUPPERS

LONG ISLAND SOUND yachtsmen who have nothing else to do now that their dinghies are icebound and frostbiting, consequently, is out of the question, are making plans to enliven the Royal Bermuda Yacht Club's annual series of spring international regattas. In Six-Metres, Interclub and Victory Class one-designs, Sound skippers and their Corinthian crews will strive to beat the smart racing men who sail out of Hamilton Harbor.

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J. Seward Johnson, who has raced so much in Bermuda that the colonials have adopted him as one of their own, is having a new "Six" built by Nevins from Sparkman & Stephens designs. As soon as she is finished she will be sent to Bermuda to tune up for the Prince of Wales Trophy series. Paul Shields already has *Challenge*, his Seawanhaka Cup winner, at Hamilton and at least one other Six-Metre owner from these waters is expected to invade the Onion Patch.

The traditional team race at Hamilton between the Royal Bermuda Yacht Club one-designs and the Sound Interclubs has aroused so much interest among the Interclubbers that for the first time in, lo! these many years there are more applications for places on the team than can be accepted. The depression must be over. In recent years it has been all "Corny" Shields could do to scare up four Interclub owners willing to take their boats to Bermuda. Now he has no less than eight eager to make the trip. So he is going to try to persuade the Bermudians to make it a five- or six-boat match instead of the usual four, thereby lessening the number of Interclub disappointments.

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The possibility of a team race between the Victories and the Bermuda one-designs is something brand new. The Victories have time and again proved themselves the superior of any other one-design class of similar dimensions and sail area on the Sound. They never have lost a match with the Interclubs or Atlantics and their only defeat in fourteen team races was inflicted by the Herreshoff "S" boats from Oyster Bay. The Victories, it would seem, have the stuff to give Bayard Dill, Teddy Gosling, Jim Pearman, Roddy Williams, the Friths and Darrells a really red-hot series.

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Dill wrote to Bob Fraser, chairman of the Victory Class, suggesting that he organize a team of four boats to race the Bermuda one-designs after the annual Interclub and Six-Metre races, probably late in April. Fraser was tickled no end and at the moment is in the throes of trying to convince his classmates what a lot of fun such a team race would be and how much prestige would accrue to the class by venturing into the sphere of international competition.

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The return of the "Fifties" to the Sound will be welcomed by those who have mourned, in recent years, the slim showing in our regular races of big single-stickers. There should be quite a respectable turnout of tall yachts at the top of the starting program in 1936. There is every reason to expect that at least two of the "M's" will be out, the Twelve-Metres are planning an active season, and a few days before the project for the 50-footers was announced it became known that three of the German-built Twelve-Metre one-designs would race as a group next summer after some years of idleness.

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Six-Metre enthusiasts see in the recent sale to Chandler Hovey of the successful *Cherokee* the entering wedge for a class of these international boats at Marblehead. *Cherokee* is one of the best of the Sound "Sixes." She won the Sound championship in her first year out and twice has been on teams which represented the United States in matches with foreign "Sixes."

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The Great South Bay Yacht Racing Association, whose annual cruise and race week is the blue ribbon yachting event of Long Island's ocean shore, is considering a proposition to lengthen the fixture from five days to six. Heretofore, Monday has been devoted to an invitation regatta at Amityville for smaller boats, there not being water or room enough off that port for larger craft in the fleet. The cruise and daily races for championship points has begun on Tuesday, at Babylon, and continued through Saturday with regattas off Bay Shore, Point O' Woods, Sayville and Bellport.

It is now proposed to begin on Monday at Babylon, race on Tuesday at Bay Shore and then hold Wednesday and Thursday races over the Point O' Woods courses before moving on to the easterly ports.

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The Star Class fleets of Great South and Moriches Bays, which represent more than forty boats, have approved the idea. Because they fear that visiting aspirants for the Corry Trophy will be unable to get around to the South Shore in time to race on Monday, the Star sailors voted to make Monday's race more or less informal and to begin their championship quest on Tuesday, as usual.

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Incidentally, the Stars are steadily growing in popularity on Great South Bay and Moriches, or East Bay. The Moriches fleet, which recently reëlected Harold Halsted as fleet captain, Carl Pflug as fleet lieutenant and John Atwater as secretary, has acquired seven new members and will have twenty-one boats out next summer. The neighboring Great South Bay fleet, headed by Paul Bigelow, Edward V. Ketcham, Jr., and Willard Everitt, expects half a dozen new converts and a total 1936 membership of twenty-three.

The recent additions to the Moriches fleet include two of the best known and successful Stars in the East. Louis Hallock has bought Herc Atkin's *Jubilee*, 1935 Sound champion, and L. E. Pierson, Jr., has taken title to *Moonshine*.

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More Star news: Adrian Iselin's *Ace*, perennial winner of mid-winter racing silver, will represent Western Long Island Sound in the Habana fixtures this year. . . . Stanley Ogilvy's *Jay* and E. S. White's *Shucks* have been selected as the fleet's starters in the spring series at Nassau. . . . Western Long Island Sound Stars will hold Friday afternoon races next summer. . . . The Great South Bay boys are talking about holding a midweek series. . . . Bayside Jimmy Moore has sold *Lure* (No. 35) to Henry Beers of Westhampton, and will save up for a new boat.

\+ + +

Resuscitation of the old New York Fifty-Foot Class will be attempted on the Sound next summer, a move calculated to increase the amount of big boat sailing in this territory and the size of the fleets participating in the squadron runs of the American and the New York Yacht Club cruises.

Three of the "Fifties," built by Herreshoff in 1913, are coming out with new jib-headed rigs and auxiliary motors to sail as a one-design class in the Y.R.A. championship events. The boats are *Ibis*, recently bought by Carroll B. Alker from Clinton H. Crane; *Barbara*, Henry C. Taylor; and *Spartan*, Herbert Hanan. *Ibis* has been out of commission for several years but *Spartan* and *Barbara* raced either in the "M" or handicap classes on the Sound last summer under Marconi rigs that had displaced their old gaff-headed sail plans.

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Dear Sirs:

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I purchased one of these windlasses from you last year and am pleased to report it has been more satisfactory than I even dared to hope for as it makes every other windlass I have ever used seem comparatively inefficient when it is a question of hauling up a heavy anchor.

Yours truly,

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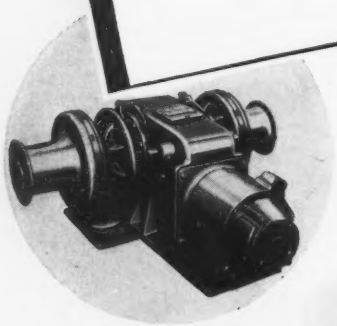

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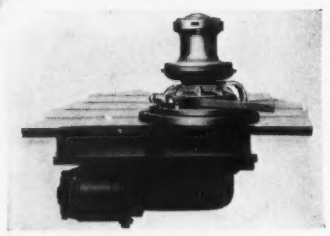
A compact, powerful, electric windlass with close centered wildcats which can be operated separately or simultaneously. Equipped for hand operation. Five sizes, normal capacity 800 to 5000 pounds at 24 feet chain speed.



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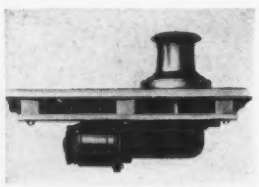

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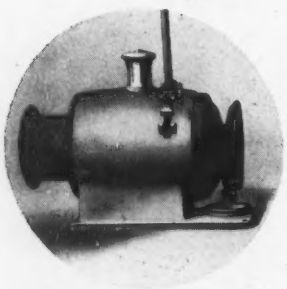

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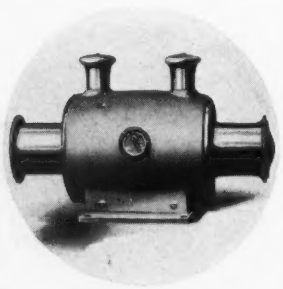

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Great Lakes Breezes

By R. A. HAYNIE

AT THIS time of year, when Lake Michigan breezes blow cold, there comes a lull in yachting activities, but this period presents a fine opportunity for scanning the horizon to see what 1936 will bring. It will be a momentous year in these waters.

\+ + +

First, the International Star Class Championship races are scheduled to be held at Rochester, N. Y. Lake Michigan bid for this event and, although we are disappointed in not getting it, we are pleased that it will be held on the Great Lakes. Rochester is not too far away, and this district will probably have a number of representatives striving to bring the series to Chicago in 1937.

It is predicted that once the salt water yachtsmen sail these races in open, fresh water, over courses free from currents and wind disturbances, they will want them held on the Lakes every year. Not a bad idea.

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Second, the terms of the Deed of Gift governing the Richardson Cup, emblematic of the Class R championship of the Great Lakes, require that these races be sailed on Lake Michigan, in accordance with the plan of rotation.

The cup is now held by *Kathea II*, representing Lake Ontario. In the series sailed at Toronto, in 1934, Lake Michigan was not represented, and now that the races will be held here this year, Chicago will endeavor to make amends for her default by providing a real welcome to the visitors.

With *Gypsy* at Detroit, and *Robin* at Cleveland, the representative of the Interlake Association can be counted upon as a real contestant. This, unfortunately, has not always been the case. And there will be a real fight in the Chicago fleet for the honor of representing the Lake Michigan Association.

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Third, with the advent of the Eight-Metres here, there is some possibility of Lake Michigan being represented in the Barthel Trophy races for this class.

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Fourth, the Robinson brothers, Sanger and Ted, are already talking of taking *Lill Singva* down to Marblehead to participate in the 30-Square-Metre races for the President's Cup.

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Another new type of yacht will be making its appearance here this summer. A group of Chicago Yacht Club members are having built in Sweden several of Knud Reimers' 20-Square-Metre racer-cruisers, similar to *Zest*, owned by Roger de Quincey of England.

It is agreed by all who have seen the lines of this boat that the type should be admirably adapted to Lake Michigan. If this is so, we may expect the class to prove popular. With an over all length of 27′ 8″; water line, 22′ 2″; beam, 6′ 3″, and a draft of 4′ 2″, the boat has a little more than 3900 pounds displacement, and carries 215 square feet of sail.

Uffa Fox, in his new book, states that *Zest* is remarkably fast as she is equipped with the tall, narrow rig, and has an easily driven hull.

Henry Babson and Commodore Hollis Potter have each ordered one of these boats, and Gustavus Babson and Walter Carr have ordered another. Indications are that two or three more orders will be placed in time for delivery for the opening of the season.

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There is a possibility that the Mackinac Cup Committee will adopt, this year, the L. M. Y. A. cruising measurement rule for the Mackinac Race. If this is done, it means that hereafter all the cruising races on the lake will be sailed under one rule, a goal that has been sought for some years.

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It is not likely that any changes in the rule will be made this year, but the various rules will be studied thoroughly and applied to the various races, with the idea of improvement in the handicapping, if possible.

\+ + +

Word has been received that the War Department has officially approved the plans for the new yacht harbor at Jackson Park, and that work will be started this year.

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Provide... ● A RIDE such as you boatmen have never before experienced. New hull form, new weight distribution, unusual dryness and maneuverability beyond all comparison. Incidentally, it is as fast as it is beautiful.

- POWER through the Eddy Marine adaptation of Ford 4 and V-8 motors to marine use. This product has been perfected after many months of wide open throttle, full-load breakdown tests under all operating conditions. Motor service everywhere.
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- COST SO SUPRISINGLY LOW in purchase price and operating expense that every lover of boating should afford the joys of ownership that await those who purchase the EDDY Aqua-Flow POWER BOAT for 1936.

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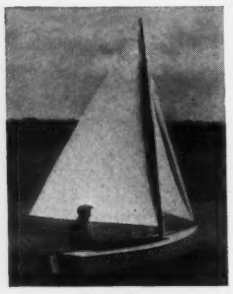
Beach Boat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CAPE COD — one of the oldest and largest manufacturers of small boats — introduces a new group of inexpensive, practical boats for youngsters and adults.

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JUNIOR SKIFFS — 7′ and 8′ o.a. — a Playboat, light and capacious, for auto trips, campers, fishermen, hunters and yacht tenders. The 7 ft. one costs only $28.00

THE MIDGET — 7′ o.a., 42″ beam, the smallest centerboard sailboat. Cedar planked. Bronze fittings. Nearly 400 delivered already. The youngster's first real sailboat at only $48.50

THE TERN — 10′ o.a., 4′ 7″ beam, a staunch, centerboard knockabout. Flat-bottom. Bronze hardware. Easily carried on cruiser or yacht. Amply big for Dad and Junior, at $98.50

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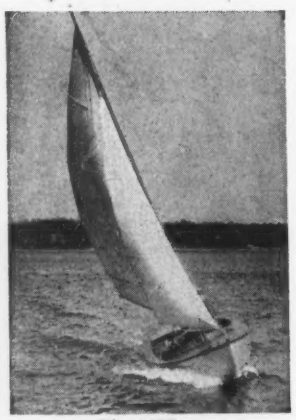
The VEE 16

Over 30 yacht clubs race fleets of CAPE COD BOATS. Boys' and girls' camps use them for sailing instruction. Quality of material and workmanship is demonstrated by a 10 year average age of active boats in some fleets. All are cedar planked, and have bronze fittings and Wamsutta sails at no extra cost.

BABY KNOCKABOUT — 18′ o.a., 5′ 10″ beam, 10″ draft — sail area 183 sq. ft. Over 800 sold. Able, safe and fast. Especially suited to class racing at yacht clubs and family day sailing.

VEE 16 — 16′ o.a., 6′ 3″ beam, 12″ draft — sail area 153 sq. ft. A modern V bottom hull. Roomy and seaworthy. A one design which bids fair to overtake the Baby Knockabout in number in use.

NIMBLET — 15′ o.a., 5′ 1″ beam, 6″ draft — sail area 136 sq. ft. Particularly suited to boys' and girls' camps and summer colonies on lakes for racing, day sailing and instruction.

SNIPE — Built to standard class specifications. Wamsutta sails. Bronze hardware. Cedar planking — a quality boat throughout.

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West Coast Bubbles

By WALDO DRAKE

TWO days of soft weather and a howling nor'wester on the last day was the portion of the post-Christmas week-end regatta at Balboa-Newport, by which the Newport Harbor Yacht Club celebrated the completion of the bay's pleasure port.

As usual, "Hook" Beardslee and his international champion *By-C* made a clean sweep in the Star Class, with a point total of 27¾ for three races. Herbert Dowsett, Jr., of Honolulu, sailing *Procyon*, annexed 20 points, and Myron Lehman, in *Moderna*, 15.

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Bill Slater's *Lanai* won the Six-Metre trophy, with 15½ points. She was trailed by *Ay-ay-ay*, 13; *Mystery*, 12; and *Gallant*, 11¼. Owen Churchill's *Angelita* won an Eight-Metre duel with Pierpont Davis's *Santa Maria*.

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The program served, also, to introduce to Pacific yachting the new Class B one-design dinghies of the North American Dinghy Association. Six boats were on hand at Balboa, victory going to Nick Potter, designer of the class, who won four out of five races with his *Corvette*.

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The North American Yacht Racing Union has allocated the trials for the selection of the American Olympic entries in the Six- and Eight-Metre classes to Southern California. They will probably be run off in conjunction with the Tenth Annual Mid-Winter Regatta, to be sailed off San Pedro February 12th to 16th, inclusive.

It was expected that Owen Churchill's *Angelita* would be an uncontested candidate for representative of the Eight-Metre Class at Kiel next August, but now comes news that a veteran West Coast Six-Metre helmsman will build a new "Eight" at San Pedro and is hopeful of having the trials in that class delayed until her completion. Six-Metre owners with Olympic aspirations are Donald Douglas, with *Gallant;* Richard F. Schayer, with *Naiad;* and William A. Bartholomae, Jr., with *Mystery*. American helmsmen in the Olympic 12-Foot Monotype Class will also be selected in trials in Southern California.

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Hans William Rohl, owner of the steel cruising schooner *Ramona*, is the new commodore of the Newport Harbor Yacht Club. His vice commodore is William A. Bartholomae, Jr. Shirley Meserve is rear commodore.

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Fellows & Stewart are in the midst of building a new yacht basin along Cerritos Channel immediately south of their San Pedro plant, on Terminal Island, to provide mooring and storage facilities for 150 yachts. It will be ready February 15th.

The plant is also completing a 35-foot motor sailer for R. B. Ahlswede, of Pasadena. She has a sloop rig hoisting 600 square feet of canvas, and is powered with twin Universal Flexifours. Four one-design day cruisers, 30 feet in length, are also building. These are for February delivery.

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L. E. (Ted) Geary, Los Angeles and Seattle architect, has three interesting conversions under way at the Blanchard boat yard, Seattle. They include changing C. W. Stimson's 54-foot Alden gaff-rigged sloop *Angelica* to a lofty Marconi sloop rig of 1,400 square feet; rerigging Paul Henry's 53-foot *Katedna* to a staysail schooner, with 1,975 square feet of working canvas; and the revamping and installation of a 120 horse power Atlas-Imperial Diesel in W. H. Lyman Jr.'s 70-foot cruiser *Pagan*.

At San Pedro, Geary is making Louis Vlasnik's 52-foot power cruiser *Gladiator* into a ketch-rigged motor sailer.

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The following yachts from the board of Edson B. Schock, of Los Angeles, are now building in Southern California:

At the Priess, Baum and Mitchell yards, Wilmington: a 34-foot cruising cutter for Ernest Palmer, of Hollywood; a 31-foot cutter for Erwin Jones, of the Los Angeles Yacht Club; a 43-foot racing staysail schooner for

International Presents for 1936

INTERNATIONAL YACHT RACING COPPER — Glassy finish when rubbed, and ANTIFOULING. *Red No. 22, Green No. 23, Blue No. 25, Bronze No. 26.*

INTERNATIONAL YACHT CRUISING COPPER — For a good round coating of strong antifouling properties. *Red No. 10, Green No. 11.*

INTERNATIONAL WOOD BOTTOM PRIMER — Should be applied to boats under construction, or after "skinning" and for the winter lay-up to protect against opening of seams. Best undercoating for racing and antifouling compositions. *Red No. 1577, Green No. 1748, Blue No. 1823, Q.D. Red Lead No. 1746.*

INTERNATIONAL YACHT SUPER TROPICAL ANTIFOULING — For steel bottoms. The STRONGEST ANTIFOULING MANUFACTURED. *Deep Red No. 466, Deep Green No. 467.*

INTERNATIONAL YACHT TROPICAL ANTIFOULING — For both steel and wooden bottoms. A very round coating of extra strong antifouling properties. *Red No. 46, Green No. 48.*

INTERNATIONAL YACHT ANTICORROSIVE — For steel bottoms. Quick drying undercoater for Antifouling. *Brown No. 1543. Green No. 1544.*

INTERNATIONAL YACHT GALVEX A-214 — An anticorrosive primer, especially made for yachts subject to corrosion caused by electrolytic or galvanic action, or impurities in the metal. Applied like ordinary paint and quick drying.

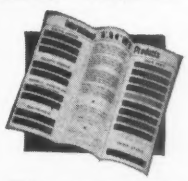
INTERNATIONAL YACHT BARE PLATE PRIMER NO. 45 — For steel bottoms after a scaling job and on new plates.

INTERNATIONAL YACHT BOOTTOPPING — For wood and steel. Hard and durable, yet sufficiently elastic not to crack. May be scrubbed repeatedly without deterioration. No antifouling properties. Quick drying. *Bright Red No. 64, Green No. 65, Cambridge Blue No. 66, English Blue No. 67.*

INTERNATIONAL YACHT ANTIFOULING BOOTTOPPING — An antifouling paint in bright colors, especially made for this usage. *Bright Red No. 70, Green No. 71.*

INTERNATIONAL YACHT DECK PAINTS — For canvas, wood and steel. Economical because of their extreme protection against the destructive action of sunlight, moisture and abrasion. Will not chalk and, therefore, may be used on any upright surfaces, such as stanchions, railings, deckhouses, etc. Made in high GLOSS, but can be supplied in FLAT, SEMI-GLOSS or ENAMEL finish, if desired. *Cream No. 53, Buff No. 54, Mast Buff No. 55, Salmon Buff No. 56, Terra Cotta No. 57, Baltic Green No. 58, Pacific Green No. 59, Atlantic Green No. 60, Caribbean Green No. 61, Battleship Gray No. 62, Battleship Green No. 63.*

INTERNATIONAL YACHT GAS AND FUME PROOF WHITES — Finest oil paints and enamels. Made from the very best pigments and vehicles, and designed to leave excellent surface when repainting. Rather easy to apply. YACHT GAS and FUME PROOF. *Semi Gloss White No. 37, Gloss White No. 377, Flat White, Ext. No. 38, Flat White, Int. No. 388, White Enamel, Ext. No. 87, White Enamel, Int. No. 88, Engine Room Gloss White No. 89.*



The new color card is ready . . . send for a copy.

INTERNATIONAL YACHT BLACKS — Maintain a due chemical balance between pigments, vehicle, driers and other ingredients for the correction of blistering and other failures, usually caused by the natural heat absorption of black. *Yacht Gloss Black No. 39, Yacht Black Enamel No. 36, Yacht Flat Black No. 399.*

INTERNATIONAL YACHT EXTERIOR ENAMELS — Extremely high gloss and durable. The white is positively gas and fume proof and all colors are permanently fast. *Yacht White Enamel, Ext. No. 87, Yacht Black Enamel No. 36, Yacht Gray Enamel No. 15, Yacht Endeavour Blue Enamel No. 16.*

INTERNATIONAL YACHT VARNISHES — Every detail of the extreme hard usage on any marine object has been thoroughly considered in the manufacture of all INTERNATIONAL VARNISHES. *Yacht Super Spar Varnish No. 90 (100% Bakelite), Yacht Spar Varnish No. 91 (Long in oil), Yacht 4-Hour Spar Varnish No. 92 (Utility).*

INTERNATIONAL YACHT CABIN ENAMELS — In modern light reflecting colors. Minimum attention to keep clean. *Ivory No. 250, Silver Gray No. 253, Orchid No. 258, Old Rose No. 257, Jade Green No. 252, Peacock Blue No. 260, White No. 263, Black No. 262.*

INTERNATIONAL YACHT ENGINE ENAMELS — Dry quickly with unusual hardness and lustre. Unaffected by oils, gasoline, moisture or fumes. *Aluminum No. 86, Motor Gray No. 75, Steel Gray No. 76, Vermilion No. 84, Black No. 85, Light Green No. 81, Dark Green No. 77, Maroon No. 78, White No. 79.*

INTERNATIONAL YACHT TROWEL CEMENT — For facing up topsides and decks of steel, wood, and canvas. Ideal for dents and abrasions in wood or steel. Dries quickly, with a tough and highly adhesive texture. *White No. 93, Gray No. 94.*

INTERNATIONAL YACHT BRUSH CEMENT — Trowel Cement, reduced to proper heavy brushing consistency. Ideal for filling in weaves of canvas. *White No. 99, Gray No. 95.*

INTERNATIONAL CEMENT REDUCER NO. A-228 — This is the correct reducing medium for TROWEL CEMENT, on surfaces where reducing is necessary for practical application.

INTERNATIONAL YACHT SMOKESTACK PAINTS — Pigments and vehicles selected with due regard for their ultimate hard usage. *Buff No. 72, Black No. 73.*

INTERNATIONAL ALUMINUM ENAMEL NO. 1178 — For iron work, davits, stanchions, etc. Possesses wearing properties which mark it as outstanding.

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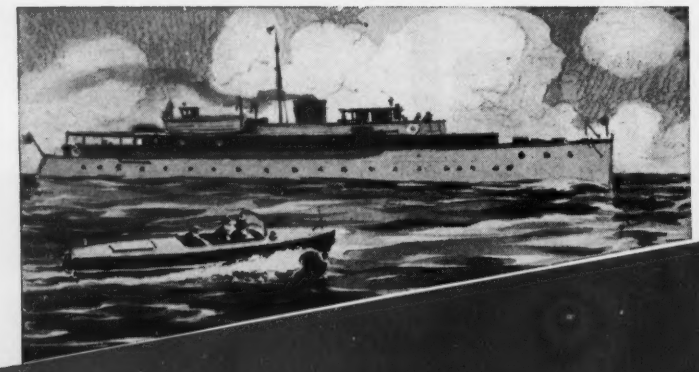

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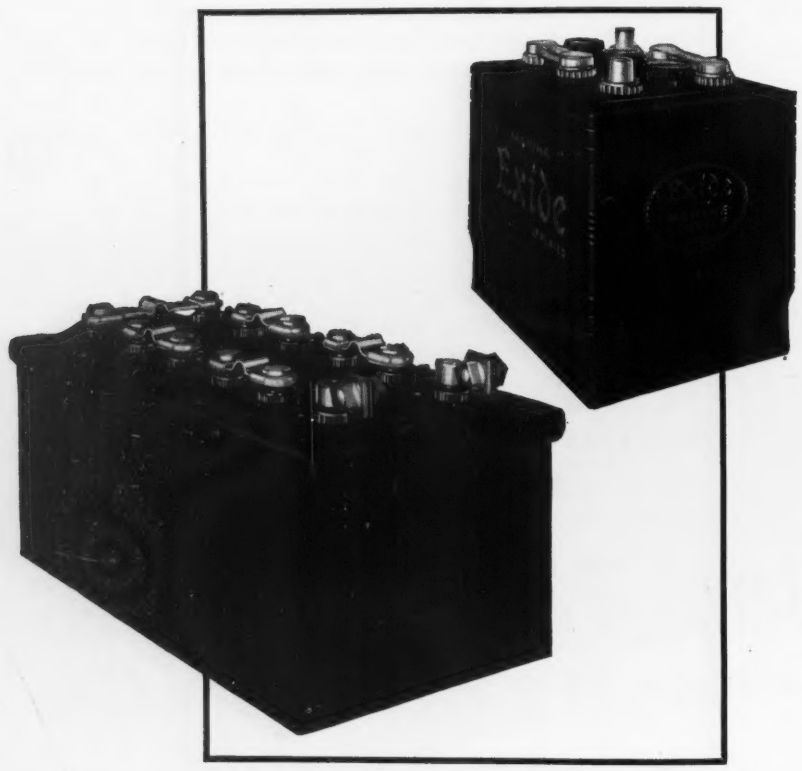

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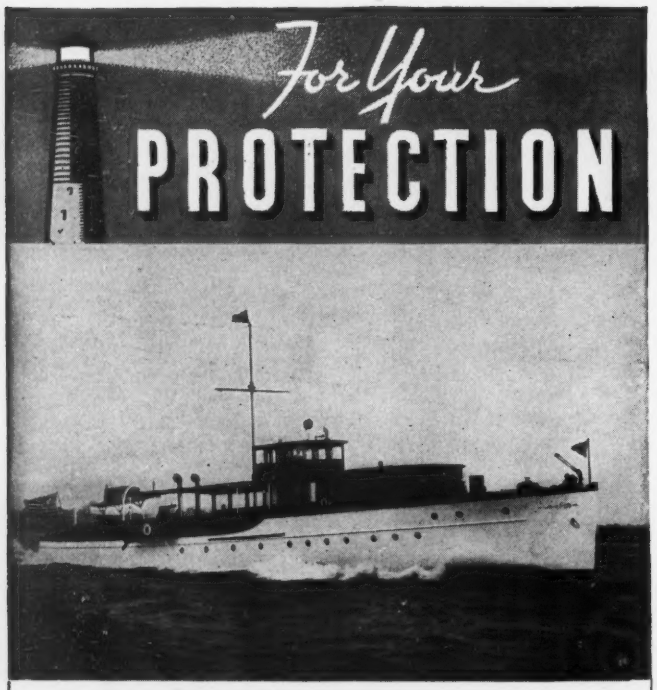

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Warren and Stephen Newmark, of the California Yacht Club; a 50-foot schooner for Harold Judson, Los Angeles.

At the Crenshaw Boat Works, Los Angeles: a 31-foot cutter for Charles Kellogg, of Hollywood; a sister craft for a Santa Barbara client; and a 34-foot cutter (with wishbone boom) for Max de Vega, of Hollywood.

At the Ackerman Boat Works, Alhambra: a 35-foot fisherman-cruiser, with a 125 horse power Chrysler motor, for Scott Hayes, of Pasadena; a 50-foot staysail schooner for Judge Walter Gates, of Los Angeles.

The Muller yards, at Wilmington, have also recently launched from Schock designs the 60-foot schooner *Zoa H* for Ray K. Person, of Long Beach, and there are four of the Schock 24-foot Interclub sloops building.

\+ + +

Wilmington Boat Works have in frame, for delivery March 1st, a 43-foot over all V-bottom cruising ketch, which is attracting wide interest among the sailing fraternity. She was designed by Hugh Angleman, vice president of the building firm, for his own use.

This little windjammer, with clipper bow, pleasing sheer, and broad transom stern, will hoist 1,100 square feet of working canvas in Marconi rig. In addition, she will carry a veritable cloud of "kites," including a huge fisherman's staysail which sheets to the outer end of the mizzen boom and a Genoa jib of 700 square feet. She will be powered with a Gray 30-horse power engine.

Narragansett Bay Gossip

By SPINNAKER LIZ

ARNOLD SHAW, of Riverside, has just designed a new 36-foot auxiliary sloop for a Narragansett Bay yachtsman. Shaw & Miller, of Riverside, have laid the keel. The boat is 25′ 8″ on the water line, 8′ 8″ beam and 5′ 3″ draft. She will have a Marconi rig with loose-footed mainsail and will carry 551 square feet of sail. She will have a stateroom with two berths and two folding berths and will sleep two in the main cabin. Deck trim will be of teak.

\+ + +

Frostbiting continues popular on Narragansett Bay and the rivalry in Bristol is keen. The fall series ended with Mrs. Stanton Smith's *Jade* winning in Class B with 77 out of a possible 101 points. In Class A, Arnold Hoffman's *Happy Daze* was the winner with 84 points out of a possible 99. Dean Fox's *Ry-Hi* took the honors in Class D with 87 out of 115. The winter series started in January.

\+ + +

A new 48-foot motor sailer is being built at Lemos's yard, in Riverside. She was designed by Sparkman & Stephens, Inc., for a Providence yachtsman. She is 41′ l.w.l., 13′ beam, and 5′ draft, and will be driven by a Chrysler Crown engine. The hull resembles a sail boat rather than a motor boat. She will carry 1000 square feet of sail.

Lemos is also building a 17-foot cruising sloop for himself, designed on the lines of a dory.

\+ + +

Sparkman & Stephens have also designed for another Providence yachtsman a 55-foot twin screw sport fisherman which is being built by Post, in Mystic, Conn. She will be 12′ beam and 4′ draft.

\+ + +

Furnans Yacht Agency, New Bedford, has designed a schooner for Frank Vining Smith. The boat, which is being built by Pat O'Connell, in Taunton, is 43′ 5″ over all, 34′ 7″ water line, 12′ beam and 6′ 1″ draft. Below decks she will have a big open cabin, with the galley at one end, and will be finished as were the old-time craft. A 40 hp. motor with reduction gear is to be installed. The yacht is to be named *Flying Fish*.

Furnans has also designed a 58-foot motor sailer for F. C. Phillips of Boston. This yacht is 55′ 2″ on the water line, 15′ 3″ beam, and 5′ 6″ draft. She will have a 16-foot cabin and a large cockpit. There will be two berths in the deckhouse. Her power plant is a 175 hp. Lathrop with 2:1 reduction gear.

One of the fastest yawls along the coast, the 36-foot *Naushon*, owned by Frank Vining Smith, was sold through Furnans to E. Newton Searles of Pomfret, Conn.

\+ + +

Casey's yard in New Bedford is busy building two new 30-footers, one for a yachtsman in Narragansett Bay and another for stock. This makes four boats of this class built since last spring. Casey has just designed a new 26-foot knockabout of standard design, which is 19′ on the water line, 8′ 3″ beam, and 4′ 6″ draft. There will be 5′ 8″ headroom in the cabin, which will sleep four.

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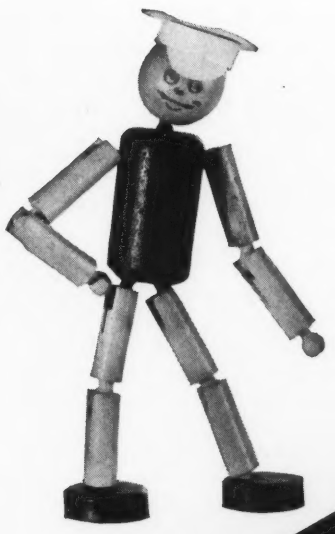

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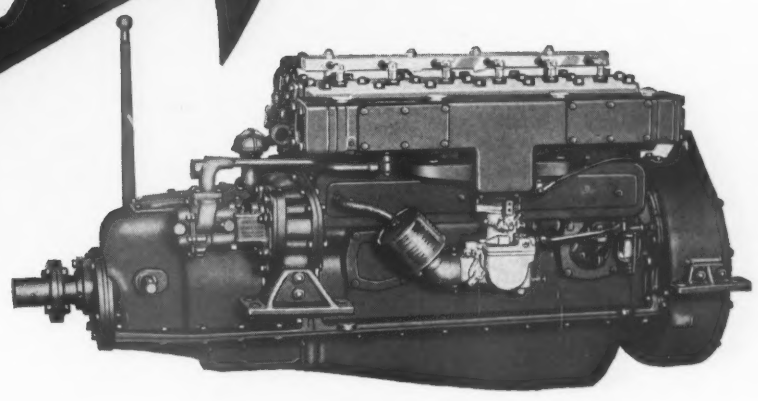

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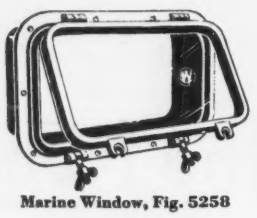
Take my advice — go to your dealer right away. Have him show you all the newest and latest in W-C "Dependable" Fittings. It will be worthwhile fun!



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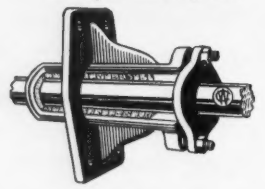

"Evergood" Stuffing Box, Fig. 8653

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Massachusetts Bay Flashes

By ED EARLE

THE high tide in the affairs of the Corinthian Yacht Club will be running strong again this summer at Marblehead with Commodore Dick Boardman elected to the helm for the fourth season. Ranked as one of the top-flight racing skippers in both American and international circles, Commodore Boardman has done a fine bit of work in restoring the Corinthian Y. C. to its old place in the sun. Last year's officers were named with Vice Commodore Jesse W. Morton, Rear Commodore William T. Haley, Secretary John P. Squire and Treasurer Frank S. Cleghorn.

+ + +

Commodore Adrian Sawyer again heads the Boston Yacht Club, the senior club of New England, launched back in 1866. The other 1936 officers include Alex W. Moffat, vice commodore; George K. Briggs, rear commodore; and Blake H. Cooley succeeds ex-commodore James R. Hodder as secretary-treasurer. The winter quarters at Number Five, Rowes Wharf, is the galley fire of yachting interest in the off-season. The Boston Chapter of the Cruising Club of America, and the Wardroom Club have regular "gams" at the picturesque quarters where there is always the smack of salt. Fifty-seven members, all veteran yachtsmen, have been added to the roster of this growing organization. The club is now planning its 70th birthday, which will be celebrated during 1936.

+ + +

A 65-foot twin screw power cruiser from Sparkman and Stephens designs, for a Connecticut yachtsman, is now in frame at Britt Brothers' West Lynn yard. Other current orders through the Boston office of Sparkman and Stephens include a 48-foot motor sailer to be built at Lemos Brothers, R. I.; a 55-foot twin screw sport fisherman to be constructed at Post's Mystic yard; a 35-foot over all cutter to be laid down at Simms Brothers, Neponset; and another 30-foot over all Dark Harbor Class boat which is to race in that successful new fleet off Maine.

+ + +

The 47-foot auxiliary ketch *Bejosa V* has been sold from Nathan W. Thompson of Portland, Me., to a member of the Eastern Yacht Club, through E. Arthur Shuman, Jr., of Belknap and Paine.

+ + +

Ed Bicknell of the North Weymouth Yacht Club has been elected head of the Massachusetts Bay Indian Class Marconi Association, with Charles E. Graf of the Squantum Yacht Club continuing as secretary-treasurer. The Indian knockabouts represent the most numerous racing class in Massachusetts Bay and have been the backbone of racing out of Boston Harbor ports for the last seven years. George W. Wightman sailed Billy Wells' South Boston Yacht Club flyer *Peggy* to last year's Indian Class championship and the cock-of-the-walk pennant, plus considerable prize silverware. It was voted at the annual meeting to abolish loose-footed mainsails.

+ + +

The office of John G. Alden reports greatly increased activity in new designing work. On the boards is a 133-foot over all wooden knockabout schooner, 106 water line, 26 feet beam, and 14 feet 3 inches draft, for John Hays Hammond, Jr., of Gloucester, which is now under construction in Mahone Bay, Nova Scotia. This craft is a typical fisherman model with all inside ballast, no bowsprit and topmast gaff-rigged. She will have a 200 hp. Diesel motor, sunken deckhouse, and is designed for long cruises.

+ + +

James W. Hubbell of New York has ordered a 40-foot water line yawl, which is being built by the Quincy Adams Yacht Yard of Quincy. The new boat will have a 40 hp. Gray motor, hollow spars, teak decks and double mahogany planking. The same yard is also building fifteen of the standardized Alden cutters and yawls. Among the owners are D. R. Stoneleigh of New York City, Findlay Downs, and Frederic L. Ballard of Philadelphia. Alden is designing a Diesel-powered steel fireboat for the City of Chicago, and a 43-foot motor sailer for J. H. W. Whitcomb of Wellesley Hills is now under construction at one of the Maine yards.

+ + +

Eldredge-McInnis report the sale of the 33-foot auxiliary yawl *Carina*, a Lawley-built boat, from J. F. O'Connor of Boston to F. A. Highman of Newton Centre. She will be used at Scituate.

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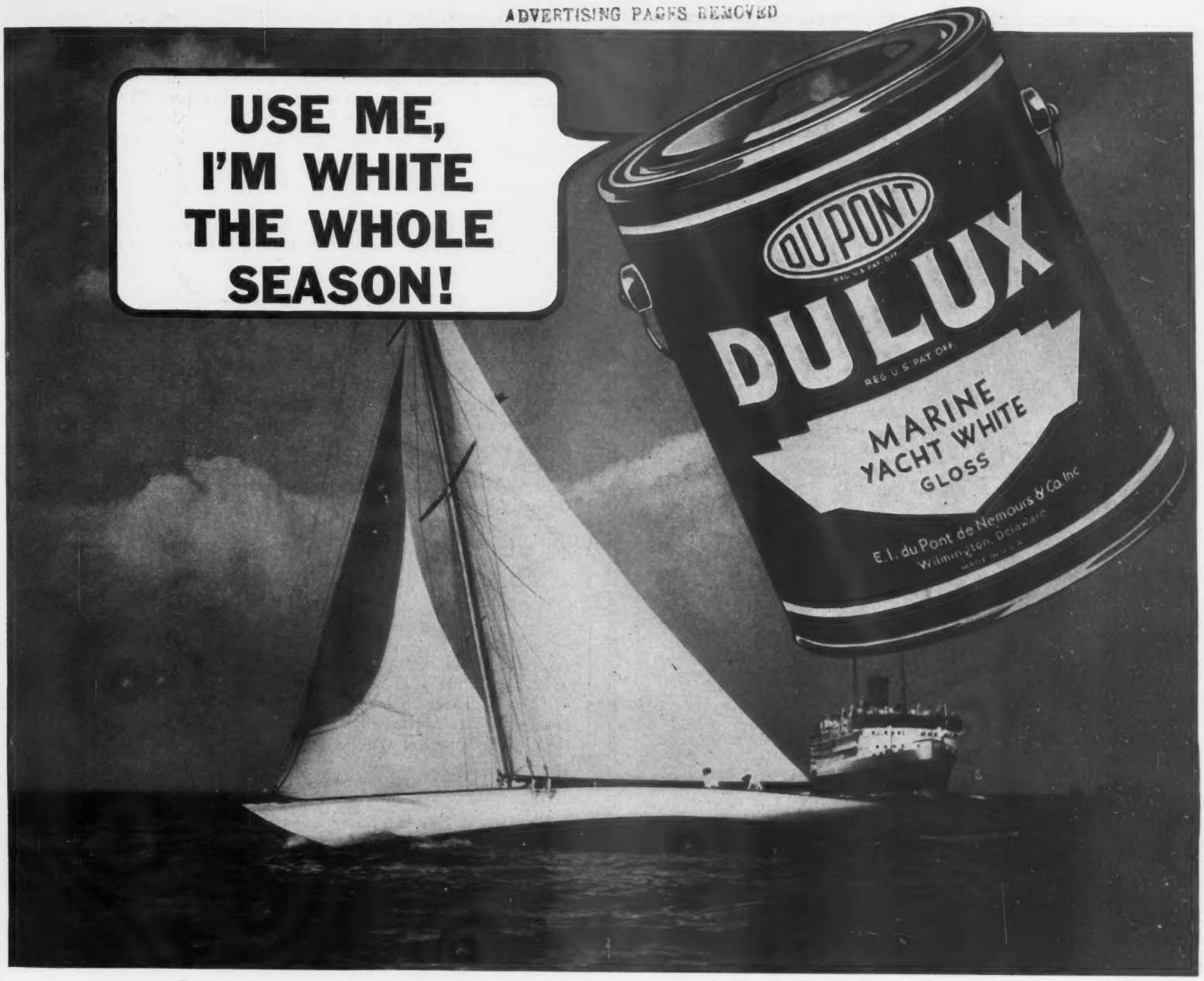

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DULUX Exterior Clear for spars, rails and all bright work is a seaworthy companion to DULUX Yacht White. These two sturdy old sea dogs and others in the complete line of DULUX Marine Finishes for above and below decks have proved their worth from Key West to Eastport—in fair weather and foul.

Ask your marine supply dealer for full information about these new and distinctly different types of Marine Finishes developed by du Pont. Meanwhile write for a valuable new booklet, "Keeping your Boat Shipshape." It contains many vital facts about how to paint boats and keep them in condition. Send to E. I. du Pont de Nemours & Co., Inc., Finishes Division, Wilmington, Delaware.

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MATHIS YACHT BLDG. CO.

Camden, New Jersey

The Pleasant Park Yacht Club, of Winthrop, has a group of dyed-in-the-salt racing men who are not slowed down by the high cost of living. Six new Radio Class 16-footers are being built by members in a big room in the clubhouse. The materials cost $125 per boat and the labor can be fittingly charged to love. A fleet of fourteen Radios is expected to be racing in the class this summer. The Radio Class, from the board of Sam Crocker, made its successful debut last season with six boats which proved fast and seaworthy.

✦ ✦ ✦

Chaisson, of Swampscott, is turning out ten new Stone Horse Junior 18-footers from Crocker designs for racing this summer at the Stone Horse Yacht Club, Harwichport.

✦ ✦ ✦

Crocker is also designing a 48-foot double-ended motor sailer for Henry Meyer of Boston on which construction has already started at Cleveland's Boat Yard, Padanaram. She will have the "backstay mizzen" ketch rig, which was introduced by C. H. W. Foster, noted Marblehead veteran of the Eastern Yacht Club. Powered with a 6-cylinder Lathrop Standard model, this able craft will carry 1325 square feet of sail. The "backstay mizzens'l" is ideal for fishing purposes since it rolls up and leaves the after cockpit clear. The boat's home port will be Marblehead and she will be used for fishing off the coast.

Lake Ontario News

By C. A. RAWLINGS

A CHALLENGE from Canada for the Silas George Cup that finds the American side of Lake Ontario in the embarrassing position of being completely divested of boats in the specified class is the most exciting news of the moment. It is the only major cup challenge in this writer's knowledge that has been graced with humor.

✦ ✦ ✦

The George Cup is a hoary international trophy originally deeded for competition in Class R. For many years the contests for it dominated the 20-raters on Lake Ontario and there were loud battles in committee rooms over scantlings and molded depth between conservative Canada and madcap America. It was the racing for this trophy which was largely responsible for the desertion of Class R by Canada and the aligning of the Royal Canadian Yacht Club, Canada's premier yachting body, firmly behind the International Rule and the North American Yacht Racing Union. The cup itself, meanwhile, lay neglected until last year when competition for it was revived in the Six-Metre Class. Toronto challenged and Rochester and Watertown defended. William P. Barrows of Rochester won with *Meteor*, Watertown was second in the series with *Jack*, sailed by Edward Lansing.

✦ ✦ ✦

The series was well sailed and for a time it seemed that not only had the old trophy come back to life but that it had given birth to a new international class on the lake as well. Interest in the "Sixes," however, soon waned in Rochester and Watertown and when it became apparent that the class was receiving little endorsement in Toronto the Americans let their boats go to Lake Michigan. Toronto's fleet of three boats, some years old, was retained. The American boats were sold late in November. The challenge for a contest next summer was mailed with a chuckle in Toronto, late in December. Its disposal will constitute the first major problem of the Rochester Yacht Club's new administration.

✦ ✦ ✦

From Toronto, the headquarters of the Lake Yacht Racing Association, Lake Ontario's international yachting government, comes another echo of territorial rights. The issue has been a moot point since the Buffalo Canoe Club was admitted into the Lake Ontario body some years ago. This club belongs to the Inter-Lake Yachting Association as well. The Buffalo boats are eligible to race in the annual regattas of both associations. They may sail for the championship of Lake Ontario and of Lake Erie. The same boat could, feasibly, win both championships. She would, as the ruling now stands, represent both lakes in the meets of the Great Lakes Yacht Racing Union. A Buffalo boat could sail on Lake Erie and lose and have another chance on Lake Ontario. A request to straighten the matter out will be made at the annual Y. R. U. meeting in Chicago. Lake Ontario wants to keep the Buffalo Canoe Club fleet coming to the regattas but will ask that

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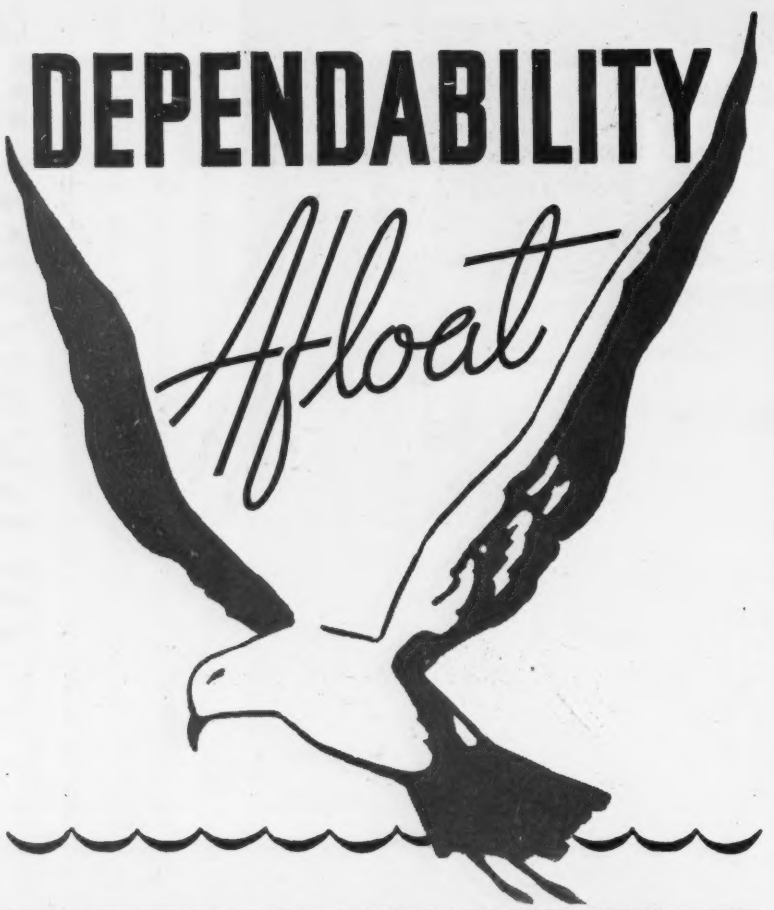

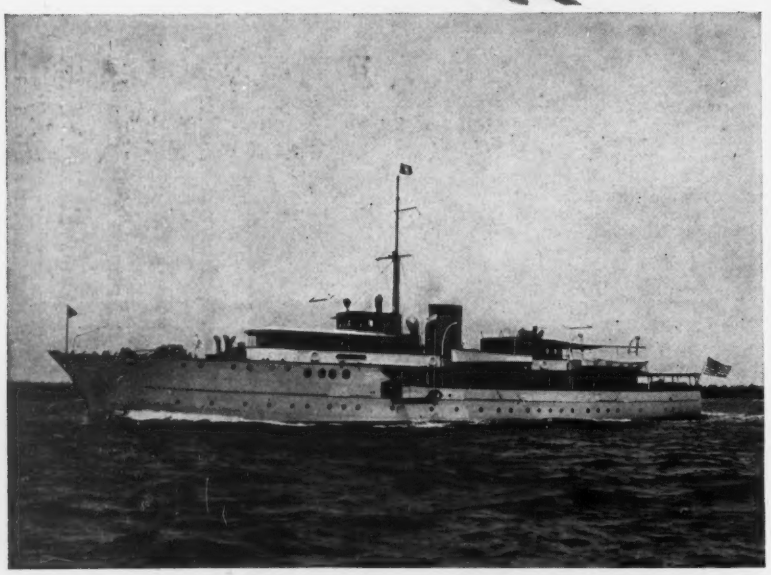

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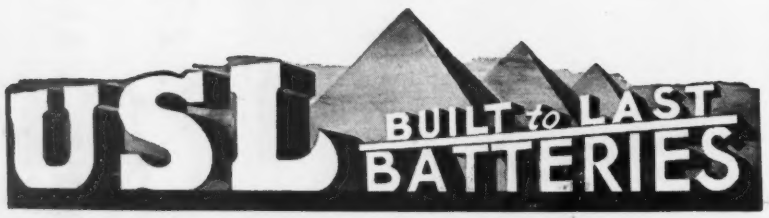
Niagara Falls, New York



they be barred from a double chance at winning the two big cups, the Richardson for Class R boats, and the Barthel for Eight-Metres. Just how this can be done is not clear. Possibly, the Lake Ontario delegates will ask that Lake Erie cede Buffalo, a proposition that will no doubt raise howls louder than any northeaster the shallow lake ever blew up.

+ + +

The Rochester Yacht Club has added up its dredging bill which totals $7,000. Fourteen thousand cubic yards of silt and sludge have been removed the past two years. The basin now has a mean draft of nine feet, however, and with returning high water, which some of the experts are predicting, the deepest draft keels on the lake will be able to come in and take shelter.

+ + +

Class R and Eight-Metre skippers of the Rochester fleet will keep their hands in all winter by ice boating. A new fleet of bow steerers will be sailing on Sodus Bay, flying the Rochester flag. Eric C. Moore, a former Fisher Cup skipper, has the first boat of the fleet. He has it rigged awaiting suitable ice conditions.

+ + +

A report from Toronto indicates increased interest in the international dinghies, in keeping with the enthusiasm in Rochester and on Long Island Sound. Three new boats are building from designs by Canada's leading dinghy designer, Charles Bourke. They will be smooth skinned, a radical departure for Canada, where clinker hulls have been universal for fifty years. They will be international fourteen-footers, influenced, to a degree, by English lines, but still dominantly Canadian. The Uffa Fox bath tub bow has not invaded Canada, the followers of Ackroyd and Peterboro still liking the lean entrance that has sliced Canadian water so successfully in the past. However, every other new idea in hull, gear and rig will be put in practice on the new boats, according to report. The meets with Rochester, where the pure English type predominates, should be the most interesting ever sailed in small boats on Lake Ontario.

+ + +

An invasion of England in July is reported scheduled by a four-boat Canadian team, a return of the visit of the Royal Norfolk and Suffolk team two years ago when the English team, managed by Uffa Fox and captained by Stewart Morris, was the winner of a close match. Superiority appeared to be equally divided between boats and men, but the Canadians promised that they would meet the English team again and win. The meet should thrill small boat England and prove a high light of the season on the Solent.

+ + +

Six new English international fourteen-footers are scheduled for construction by Rochester this winter and six more are in prospect. The class, a one-design built from molds duplicating the *R.I.P.*, designed by Uffa Fox (a Prince of Wales Cup winner two years ago), is expected to be twenty strong by spring.

Comet Class News

JANUARY, 1936, ends the second year for the Comets. Organized in 1934 with only a handful of boats, the class has grown rapidly. Today there are 17 organized fleets, each ranging from 6 to 20 boats. About 175 boats have been registered and at least 100 others that are not registered with the Comet Class Y. R. A. are either building or are in use.

+ + +

During the Motor Boat Show the class will hold its annual meeting and election of officers, followed by a dinner at the Hotel Montclair. A Comet will be exhibited at the Show by the Skaneateles Boat & Canoe Co. and the class headquarters will also be in space 5-B, on the main floor.

+ + +

A fleet is being formed at Watermill, L. I., and orders for six boats have been placed. Another new fleet is being formed at Orient Point.

+ + +

After the close of the season at Stone Harbor, N. J., some owners had not had enough sailing, so they took their boats to the upper Delaware and have been frostbiting. Next spring may see a fleet on the upper Delaware.

New 50 ft. Diesel Cruiser

By GREAT LAKES

FOR 1936 Great Lakes offers a new 50-foot twin-screw Diesel powered cruiser at a price which makes it the outstanding buy of the season. Consider these many desirable features: Low modern streamlined appearance — Optional two or three stateroom arrangement — Sleeping accommodations for six to eight in the owner's party with separate crew's quarters forward — Staunch mahogany planked hull of typical Great Lakes quality — Twin-screw Diesel power giving fast dependable performance and exceptional economy of operation — In short, a cruiser which answers all the requirements of carefree enjoyable cruising, a boat you will be proud to own.

We cordially invite you to visit our plant to see the construction of this outstanding cruiser

Attractive designs in larger and smaller sizes are also available

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CHICAGO ILLINOIS

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Gasolines have changed since your engine was installed: but what about the carburetor?

IMPROVED PERFORMANCE
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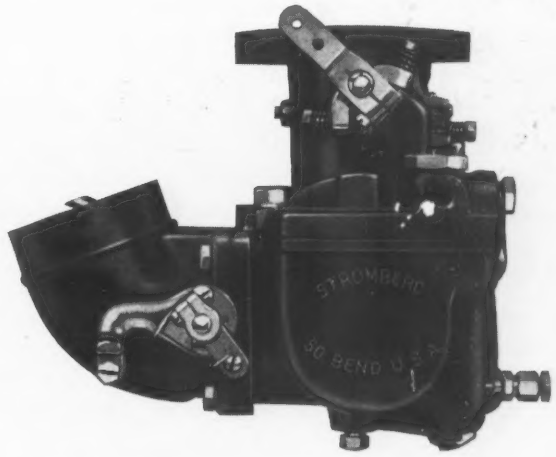
LOWER FUEL CONSUMPTION

are assured with a STROMBERG MARINE CARBURETOR calibrated for present day gasoline and your engine.



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100% MARINE

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(*Subsidiary of Bendix Aviation Corporation.*)
Please send me full data regarding a new Stromberg Carburetor for the engine described below:

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Street Address.....

City.....*State*.....

Make and model of engine.....

Maximum engine speed desired.....

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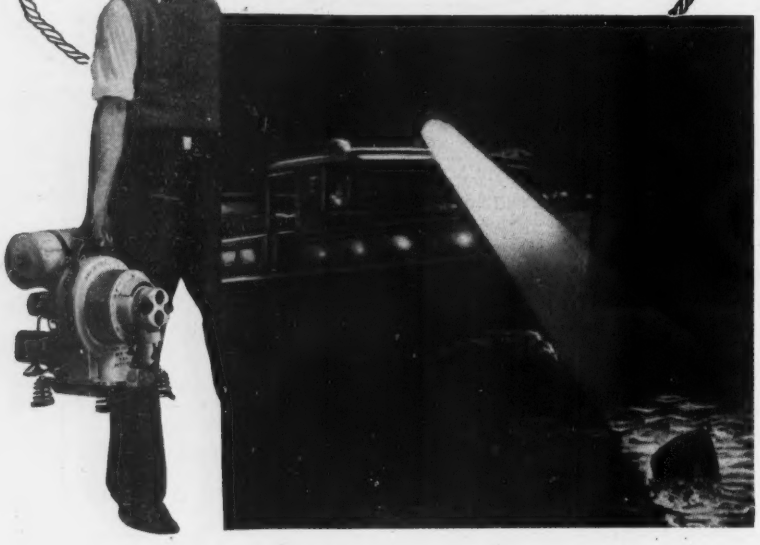

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Water-Cooled electric plants

Whether you own a 30-footer or a 70-footer, you can get all the electricity you need from the new Homelite water-cooled electric plants.

Homelites are specially designed and constructed for sea service. Their capacities are 800 and 1250 watts, yet they are *small, compact, light* and *low in cost.* They weigh less than 100 pounds complete with built-in gasoline engine.

Homelite plants can be used with or without batteries. Flexible performance permits charging of 6 and 12 volt starting batteries as well as 32 volt lighting batteries. No special battery charging switchboard is necessary. The plant starts electrically from the battery.

You get safe, dependable service from Homelites. Water-cooled engine and exhaust allow installation in confined quarters. Engine has positive displacement water pump. Flexible exhaust is absolutely gas-tight. Carburetor has flame arrester. Spring feet eliminate vibration.

Thousands of Homelites are in Marine Service

Send for new descriptive bulletin

Also available — *air-cooled* Homelite marine electric plant in 600 watt capacity at new low price

HOMELITE Corp.

KNOWN THE WORLD OVER

402 Riverdale Avenue Port Chester, N.Y.

Through the efforts of the Central New York Y. R. A., five fleets have been formed and this association has accepted the Comet officially.

\+ + +

The Richmond County Y. C. fleet is preparing for the 1936 National Comet Championship Regatta which it will hold by virtue of the victory of Roger Willcox last year. Willcox is building a new boat to be ready for this year's regatta. At the Commodore's dinner in December the Comet trophies were officially presented to him by Commodore Paul Downing.

\+ + +

Verner Smythe, Fleet Captain of the Washington fleet, reports several new boats.

\+ + +

The Barnegat Bay fleet is growing so fast that it bids fair to be one of the largest in the country.

\+ + +

The Raritan Y. C. fleet will number almost 20 boats by the time the season opens. Doctor Grant apparently does not know that the season is over. When asked the other day when he thought he would pull out, he said "When the ice gets so thick that I cannot get through." This fleet is going to present the Comet exhibited at the Motor Boat Show to the holder of a lucky share number.

\+ + +

The Keyport Y. C. fleet has at last called it a day. For a while it looked as if its boats were going to race all winter. Starting last season with three boats, it will probably number nine by next spring. Some of the fine pictures in the Comet booth at the boat show are of the Keyport fleet in action.

GEO. D. EMMONS, JR.

Along the Detroit River

By WALTER X. BRENNAN

WITH a decided air of prosperity in Detroit, a new power boat regatta committee inaugurated last fall, and increased interest in power boat racing, it looks like a return to the good old days on the Detroit River next Labor Day.

The Detroit Y.C. has already applied for the date and the racing bugs have begun to consult designers and engine builders. It not only looks like a great regatta at Detroit on Labor Day but it looks as if some Detroit boats would be prominent at other regattas.

\+ + +

Should threats directed at the Harmsworth Trophy materialize, the race for the B.I.T. will naturally be the center of interest. The next best bet should be the 225 Class event for the W. D. Edenburn Trophy, and a close second to that is the D.Y.C. Development Race for Gold Cup boats.

\+ + +

At present there is talk of a new race which might work into the regatta. It has been proposed that a race be run here patterned after the Indianapolis automobile race, in which a definite amount of fuel is allowed. In a city where every second person is a motor expert, such a contest should get a lot of support. It is rumored that some of the leaders in the automotive industry are much interested and might be induced to build boats for the event.

It is also suggested that the famous Scripps Trophy reliability race for power cruisers be revived. This competition is as old as motor boating and it is possible that the cup may be dusted off for the Labor Day regatta.

\+ + +

Herbert Mendelsohn is reported to be working on his Duesenburg motor with which Clel Perry won the President's Cup last fall. This indicates that his *Notre Dame* will be back in competition this season. Whether Mendelsohn will build a new hull or revamp the old one has not been decided. Last season the boat was rushed to Lake George before her paint was dry and competed in the Washington race before the "bugs" were removed. With more time to get organized, Mendelsohn should be a formidable contender this season. He will be a sure starter in the runabout class at Miami in March as he already has two legs on the Wanamaker Cup there and hopes to make it three straight this winter.

FLASH!

Johnson electrifies outboard motordom with news of two brilliant new motors, priced to bring Johnson DEPENDability within the reach of ALL!

POWER! Highest official certified power ratings in their respective classes: ***Model 100 (Single):*** 1.7 N.O.A. ***certified*** brake h.p. at 3300 r.p.m.! ***Model 200 (Twin):*** 3.3 N.O.A. ***certified*** brake h.p. at 3000 r.p.m.!

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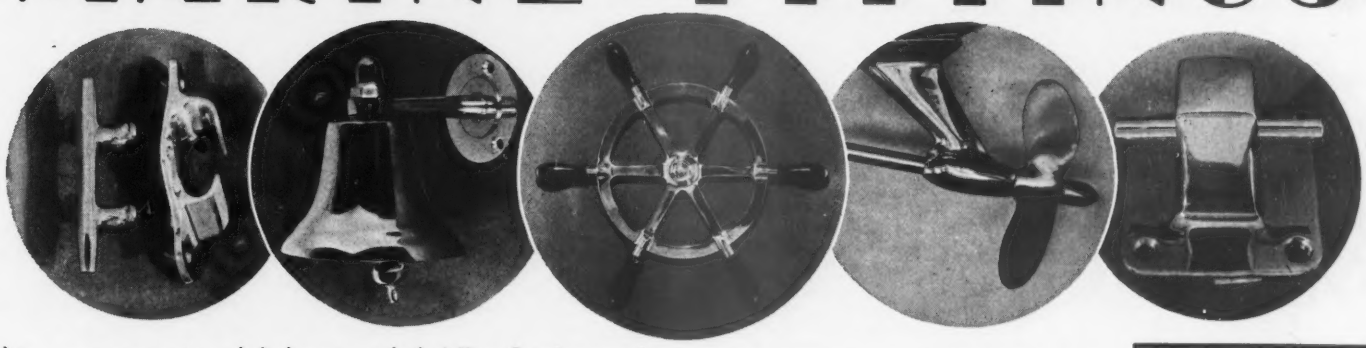

● Sea Steel is a non-magnetic solid chrome-nickel Alloy Steel more than twice as strong as brass or bronze — stronger than any other metal adaptable for marine equipment — the most perfect material yet devised for a multitude of yacht uses. Sea Steel standard fittings are designed by George Lawley & Son Corporation and finished to the specifications of these master yacht builders. Sea Steel products are cast, forged, or fabricated. Any item and special designs can be supplied.

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ROBINSON MARINE CONSTRUCTION CO.

BENTON HARBOR
MICHIGAN

One of the surprises of the winter was given the local yachting fraternity when Russell A. Alger, Jr., announced that he would probably give up the race to Mackinac this summer in the cruising class and would enter a new design streamlined boat, he now has under construction, in the racing division. In this class he can compete only for the Clark-DeRoy Inter-City trophy for the best corrected time in the Lake Michigan and Lake Huron fleets, which race to the Straits simultaneously.

Alger is having his Gielow-designed 22-Square-Metre boat altered to something that promises to look like a whale. Decks and cabin were removed and the hull completely streamlined. A large cockpit amidships will have a glass hatch which can be closed in rough weather and still give plenty of light inside. The helmsman's cockpit will be just large enough for one man. The sail will be increased to 400 square feet and some ballast will be added to the keel. The local fans are watching the experiment with interest.

\+ + +

While various yacht clubs were making a frantic scramble for Federal funds to dredge out their local harbors a few months ago, they are finally swinging into action on one project, the harbor at Put-In-Bay, Ohio. Put-In-Bay has been the scene of the annual Inter-Lake Yachting Association Regatta for 42 years. Off it was fought the famous Battle of Lake Erie. The clubs fear that there will not be enough money to go around so they are working for the improvement of this central anchorage.

\+ + +

Detroit boat yards report an unusual amount of interest for this time of year in repairs and alterations. It is expected that yards which have been idle will keep busy through the cold weather. In anticipation of a good season in 1936, several plants started to build stock boats before the first of the year though usually no work is done until late in the winter.

\+ + +

In a recent election of officers of the Detroit Star Class fleet, Edward Knevals was elected fleet captain and Fred Fuger, secretary.

\+ + +

Local ice yachting takes on an aggressive attitude with the sending out of challenges for the Stuart unlimited class trophy now held by Fritz Jungbluth, of Madison, Wis., and the Michigan Championship flag now held by Louis Simons, of Kalamazoo. Joe Lodge, with his rebuilt *Deuce II*, wants a fling at the Stuart Cup and Joe Snay would like to sail his *Gossoon II* for the flag.

With a fair deal in the weather, local ice yachting should hit a new high this winter and if the much talked of weather cycles work out this should be a good ice yachting season. There will be more boats in each class of ice yacht than ever. The Skeeter division, which is new here this season, will also be well represented.

Yachts Wintering in Florida

A LARGE number of northern yachts have visited Florida waters this winter, or have arrived there for the use of their owners during the season. Up to mid-December the list included the following:

Yacht	*Feet*	*Owner*
Elfreda	140	H. B. H. Ripley
Pleiades	82	J. Lester Parsons
Vagabondia	222	Wm. L. Mellon
Paragon	140	Chas. J. Davol
Caritas	157	J. Percy Bartram
Moana	171	Wm. B. Leeds
Gadfly	106	Alfred I. duPont
Prosit	56	John H. Rickettson
Rosinco II	100	Wilbert Melville
Berania	67	Miss Betty Carstairs
Priscilla	66	R. M. Barwise
Sib Bil	45	Wm. H. Snyder
Stella Polaris	50	C. Louis Allen
Old River	120	C. K. G. Billings
Mascotte	140	Henry B. Plant
Saunterer	98	Jeremiah Millbank
Lanai	85	Mrs. Arthur Curtiss James
Marlen II	34	Wm. T. Grant
Ajax	123	John L. Patten
Gay Jane	86	Louis R. Wasey
Sylvia	55	Samuel Bell III
Alice	52	Henry Howard
Seaborn	182	Richard W. Howe
Alva	264	Wm. K. Vanderbilt

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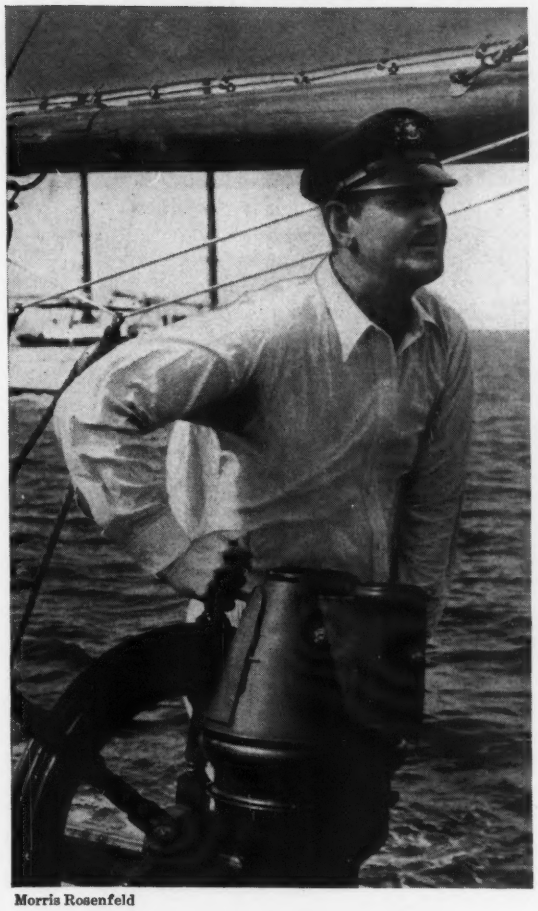

Morris Rosenfeld

ANY SEASON is all too short for sailing and cruising... without losing sunny days on continual touching-up of quick-dulling paints and varnishes. By applying modern finishes correctly formulated with Bakelite Synthetic Resins at the beginning of the summer, many yachtsmen and motor boat owners now go through entire seasons maintaining appearance and protection value without the necessity of repainting.

When based on Bakelite Resins, marine coatings gain added toughness, lasting flexibility and unusual resistance to salt and polluted water, exhaust fumes, sunlight and weathering. Practical service on hundreds of private boats and commercial ships, and tests in tidewater proving stations have shown that they retain their gloss and fine appearance after months of exposure.

This year, plan to sail more and paint less. Specify Bakelite Resin finishes. Leading marine coating manufacturers now supply paints, varnishes and enamels based on Bakelite Resin for every shipboard surface. Write today for booklet 20S, "Bakelite Synthetic Resins".

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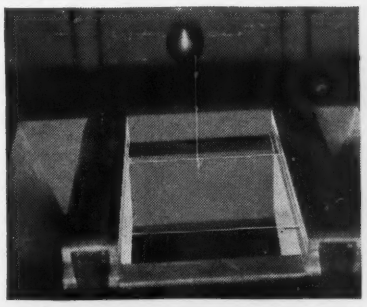
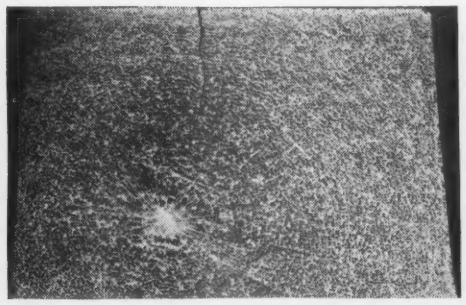
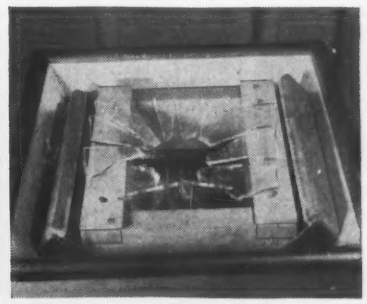
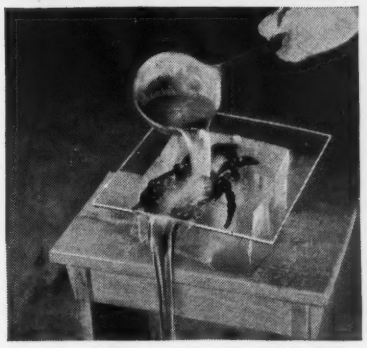


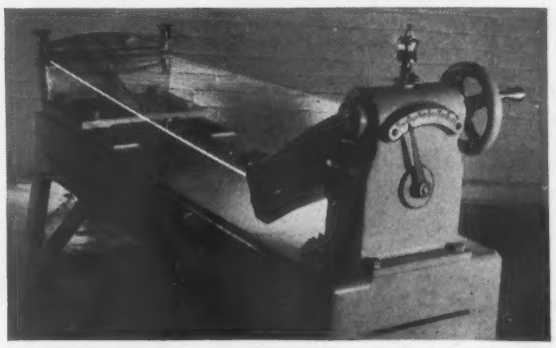






● *ABOVE: The photograph on the left shows a 2-pound steel ball bounding back from a 12x12-in. light of ¼-in. Tuf-Flex, after a drop of 5 ft. At the right, from less than 1 ft., the same ball shatters a similar light of ¼-in. regular plate glass. The center photograph shows the manner in which Tuf-Flex disintegrates when the limit of resistance is reached.*

● *BELOW: At the left, Tuf-Flex does not break when molten lead is poured on it, even though the ¼-in. light rests on a cake of ice. Regular plate glass, similarly tested, shattered instantly. At the right, a 12x48-in. light of Tuf-Flex twists through an angle of 20 degrees without failure. Regular plate glass of the same size and thickness failed at 7 degrees.*



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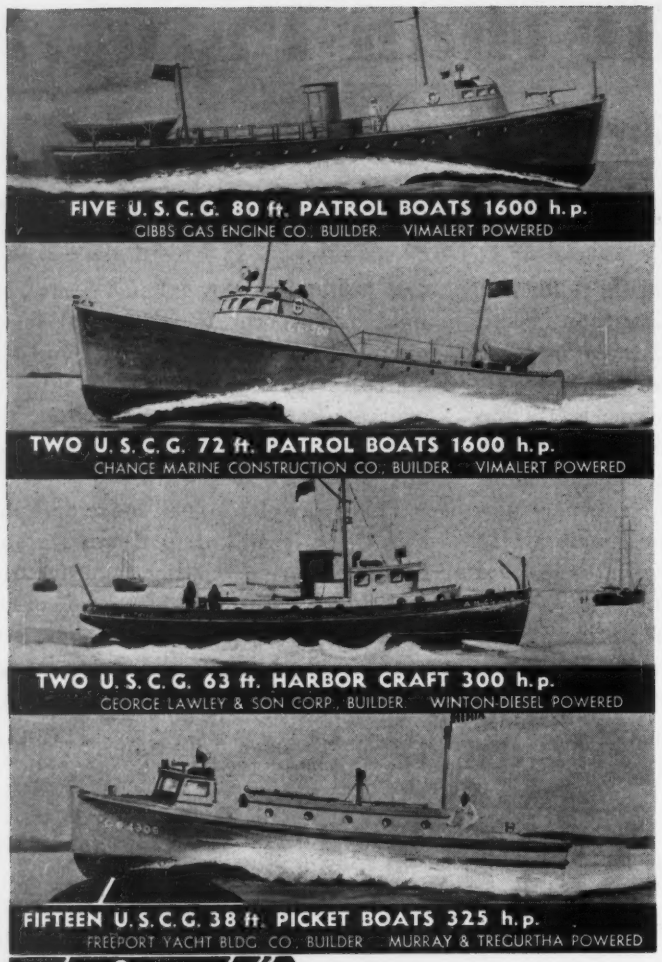
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Yacht	*Feet*	*Owner*
Thalia	169	Thos. H. Howell
Argo	60	Mark C. Honeywell
Boreas	80	Edw. P. Alker
Arcadia	188	Mrs. Huntington R. Hardwick
Chalena	247	Chas. E. F. McCann
Rene	265	Alfred P. Sloan
Nakhoda	265	Frederick J. Fisher
Saramia	80	Rodman Wanamaker
Nipper	75	Arthur W. Davis
Stranger	45	A. F. Jenkins
Bonito	50	Hugh D. Auchinloss
North Star	92	Stanton Griffis
Mendota	70	Nicholas Cavagnero
Salfran	85	F. M. Dunbaugh
Mariposa	98	Frank M. Gould
Edorea III	75	Mr. Jones
Dream Girl	100	Reamy Eugene Field
Naparo	170	F. W. Woolworth
Dormar	93	Margaret W. Love
Alamo	148	Wm. F. Ladd
Carolina	78	Maj. Henry R. Sanford
Delilah	104	Joel S. Coffin
Content	120	Howard E. Spaulding
Sunshine	100	Harvey W. Harper
Charlotte II	74	Alfred DeCozen
Pegasus	118	Clifford Hemphill
Osprey III	86	Carman R. Runyon
Bidou	124	James W. Moffett
Ottilia	110	Roger L. Farnham
Bettsy L II	85	Arthur I. Levine
Atlantic	185	Gerard B. Lambert
Halcyon	90	E. L. Ruddy
Maemere	110	De Witt Page
Linmar	77	J. Howard Marlin
Black Eagle	76	Robert C. Rathbone
Sampit	54	Ancell H. Ball
Joan	77	Virgil C. Moore
Joanne		Mrs. Tatum
Helen	49	Albert A. Frost
Sea Miss	60	Kenneth L. Taylor
Cygnet II	50	G. F. Wiemann
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Allaura	47	A. C. Hall
Semego	60	Mark C. Honeywell
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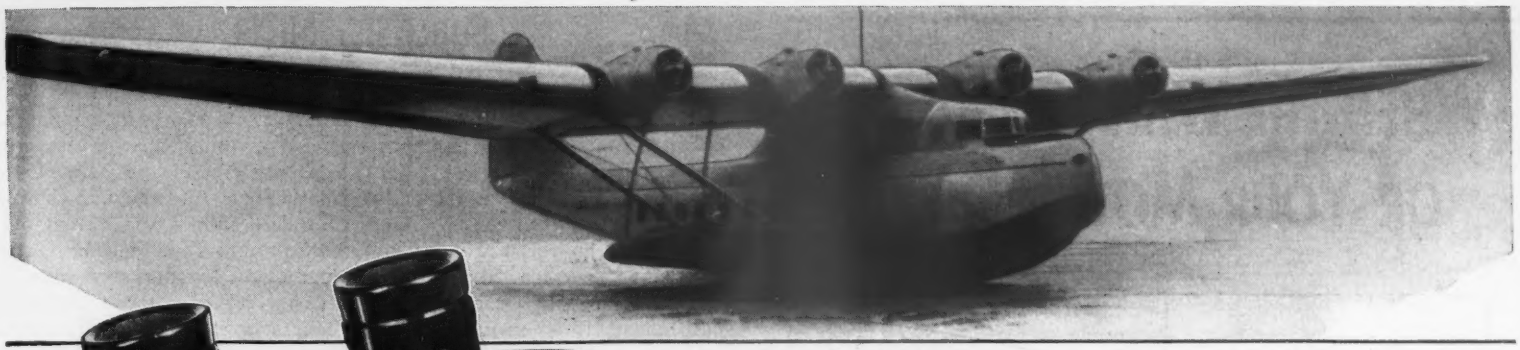
Margaret F. II	70	Norman A. Perry
Sueno	72	Chas. Mehlin
Bacardi	48	Frank Guyton
Skimmer	47	Glenn Stewart
Sonny	50	Albert B. Phelps
Mischief	58	Clarence Moore
Marnell	135	Mrs. A. W. Alsworth
Virago	98	Thomas N. McCarter
Rdream	103	Mr. Wilson
Rocket	56	Thos. Murray
Junaluska	90	Geo. C. Heck
Goldie II	36	Sol Goldman
Toxaway	46	James Coward (Chr.)
Mary Ellen	40	John J. Haggerty
Vagrant	55	F. Seymour Barr
Elda	155	A. V. Davis
Socker	50	Charles Francis Coe
Nemo III	77	H. Malchow
Noparo	170	Norman W. Woolworth
Sea Cloud	316	Edward F. Hutton
Georgia Pepper	39	Geo. E. Kurts
Flight	80	S. L. Lambert
Mermaid	75	Herbert Solomon
Minoco	108	Mills Brothers
Roamer	91	A. M. White, Jr.
LaVerriere	55	Arthur J. Moulton
Indra	72	Wm. McD. Pond
Marinette III	70	E. C. Romfh
Ellenar	104	Chas. J. Root
Marybelle	112	W. E. Ferguson
Azara	113	Hugh J. Matheson
Senorita III	85	Jos. H. Senior
Alamo	148	L. B. Manning



Above, 7 x 35 Bausch & Lomb Binocular, $86. This glass, a favorite among yachtsmen everywhere, is one of eleven models illustrated and described in the catalog.

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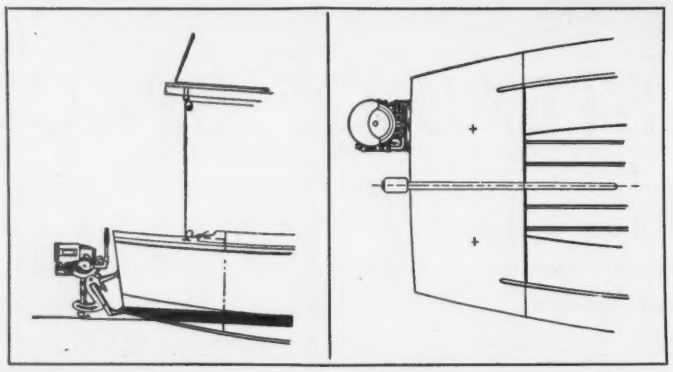
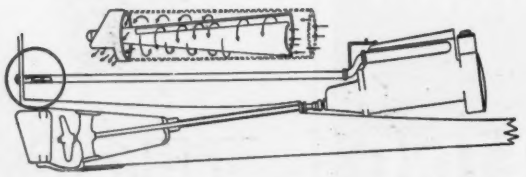


That's when you'll be glad you've got a Savage Bracket on board. A Savage Bracket solves the problem of mounting an outboard motor. Fits any boat. Fits any outboard motor. Mounted and demounted from three small lugs permanently attached to your boat. Can be attached to side or stern. No unsightly fittings. Easily stored when not in use. Permits economical trolling speed. Takes you through narrow channels where tacking is slow and difficult. Recommended by all outboard motor manufacturers. Shipped direct. For motors up to 40 lbs., $10; 40 lbs. to 70 lbs., $15 (aluminum); 70 lbs. and heavier, $20 (bronze). Patented 1690435–1704303.

TURNS EXHAUST PUTT PUTT INTO SOFT PURR



A Savage Muffler eliminates exhaust noise without creating back pressure or reducing r.p.m.'s. Scientifically designed. Installed at extreme end of exhaust pipe. Fitted inside the line. Simple, practical, inexpensive, efficient. For all motors from 5 to 500 h.p. Takes care of entire cooling system. Drains automatically after engine is shut down. Cannot freeze. Non-rustable. Costs nothing to install.

Savage Brackets and Savage Mufflers are on display at the Show at the E. J. Willis Co.'s Booth.

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SAVAGE MARINE CO.
BOSTON, MASSACHUSETTS

Subchaser Night

(*Continued from page 61*)

convinced that he felt a growing apprehension of something unknown and wondered uneasily to what vibrations his senses were responding.

Suddenly, he threw himself to the open window, his order deliberate but electric with warning, "Full speed ahead, three engines, quick! Hold her steady as you go!"

The telegraphs jangled. An enormous bulk, darker than the night, materialized out of nothing, directly abeam, rising higher and higher, filling the night, an unbelievable juggernaut of a thing towering above the crest of the next sea. I was conscious only of an arresting terror and the quickened pulse of the exhausts. Time seemed to stop while this mighty mass still surged upward, lifting the streaming forefoot of a great sailing vessel, the jibboom lost in darkness above our mast. Running before the wind, the ship checked in the surge of a following sea. Under us our little wooden hull quivered to the urge of increased engine revolutions. For an instant the shadowy bows were poised above the depth charges on our stern, then down, in an avalanche of white water, sweeping us impatiently aside, a chip in a smother of foam. I caught a glimpse of a deck full of water from bulwark to bulwark, a fence of rigging climbing to the darker shadow of bellying topsails above. A poop deck, momentarily lifted, swept across our stern marked by a spot of light at the binnacle, then was swallowed in the night. We struggled up out of a turmoil of water.

The helmsman's voice, urgent, yelled from the pilot house, "177 abeam, sir!"

The Skipper on his knees, elbows hooked over the rail, replied, steady and clear, "Two engines, cruising speed, former station." For a space of time he stayed there, head bowed, hands clasped before him.

The boatswain grabbed my arm. His teeth were chattering. "Where the hell would we be now if that third engine hadn't been running? How did he know, tell me that, how did he know?"

As the clock struck four bells I was aware of the first paling of dawn in the east.

The Greatest Fishing Year—A Review

(*Continued from page 75*)

and over 50 were brought in. The largest tuna ever caught there was also taken, one weighing 105 pounds. Many more, of between 70 and 100 pounds, were boated. Dolphin from 25 pounds down were numerous, small Mako and a few larger ones lay on the fishing docks many an evening, and big blue marlin were sighted but not hooked. However, their time is probably coming. Striped bass, bluefish and pollack were as plentiful as ever and all the little tunny and bonita families were numerous. Fine weather, new baits and the outriggers contributed to this phenomenal season.

Many small marlin and tuna were brought into Block Island. Here Julian Crandall had the second toughest break of the year. After fighting for several hours a big broadbill that would easily have topped the Atlantic record of 505 pounds, the fish was gaffed and then broke away in the darkness. Crandall fought him for two hours more with the gaffs still in him, but when, finally, he was again brought alongside the line parted. There were no flashlights on board, and as it was a very dark night the angler was at a great disadvantage. However, it is an old and true saying that a broadbill is toughest and roughest after dark. Any fish that could fight like that with two gaffs in him ranks pretty high as far as courage and vitality are concerned.

Tuna fishing off Maine was slow in starting, but in late August and September 46 fish were caught, although none weighed over 200 pounds. The fish off this beautiful coast, particularly off Ogonquit, seem to vary in size in different years. For many seasons but few under 300 to 400 pounds were taken, but of course this was before rod and reel fishing began in earnest.

Nova Scotia also came into her own last year with her marvelous giant tuna, or great albacore, as some of the French Canadians call them. Seven fish of 500 to 700 pounds were brought in at Liverpool and over 50 were hooked and lost. Captain Joe Penney and his father were high, with five between them, and Julian Crandall redeemed his loss of the broadbill by taking one that weighed 648 pounds.

August 28th saw the opening of the new grounds off Wedgeport by Michael Lerner and Tom Gifford and here 46 fish, varying from 619 to 86 pounds, were caught in three weeks. Some of the fastest time ever made in catching tuna was recorded by anglers there and prospects are bright for this beautiful place which is only twelve miles from Yarmouth.

With the experience gained this year by fishermen and guides, improvements in tackle, development of special baits, and the more frequent use of outriggers, I predict that 1936 will prove to be an even better season than the one just past.

Weigh Anchor

For sunny Nassau, where June rules and play rules. Choose your sport. It's there, at its best, and so are you, with the sun's tonic rays to make you so. Or if you prefer, take your tan restfully, lounging at ease on ocean beach or white deck of racing yacht. Join the gay throngs in colorful evening regalia...swaying to the throb of night club orchestra, or sitting and sipping a "swizzle," one of those liquid seductions that look so good, taste so good, and cost so little.

The famous Cunard White Star world cruise liner "Carinthia" sails *from New York* every Saturday from Jan. 25 to March 28 (Special 6 day cruises as low as $70.); the attractive Munson steamer "Munargo" sails *from New York* Jan. 11 and 25, Feb. 8 and 22, and fortnightly thereafter (12 day all expense tours from $122.); and *from Miami*, overnight by steamer, 2 hours by plane!

Consult your travel agent; Nassau, Bahamas, Development Board, Nassau, Bahamas; or Nassau, Bahamas, Information Bureau, 30 Rockefeller Plaza, New York.

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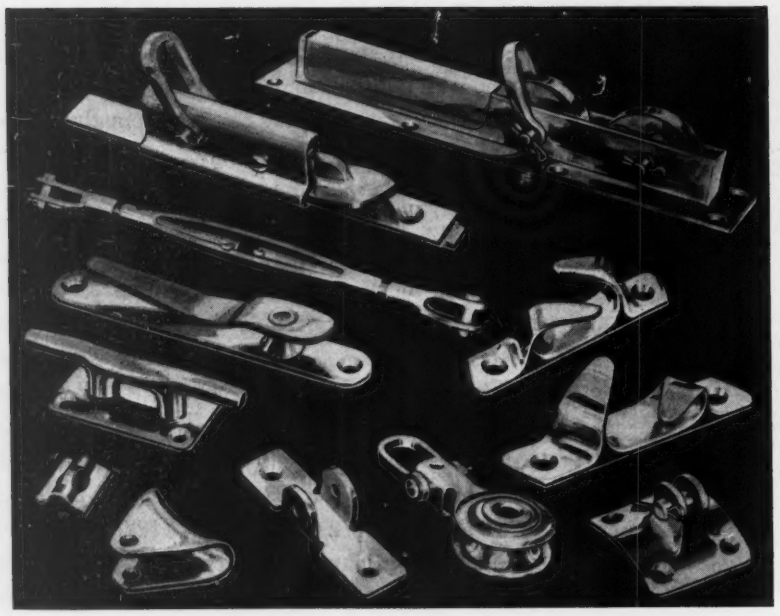
AN IMPORTANT ANNOUNCEMENT



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- that will look like new and be just as good as new after years of service.
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THE PRESSED STEEL COMPANY

WILKES-BARRE, PENNSYLVANIA

Manufacturers of Alloy Steel Products for a Quarter of a Century

The Staysail Ketch Rig for Offshore Work

(*Continued from page 76*)

ment and rig have been so frequently published in yachting papers that all must be quite familiar. . . .

"The notes in my log about her unique and clever rig may seem unduly severe, but, in all honesty, I cannot approve of the triangular mainsail with wishbone gaff and mizzen-staysail combination for the sails between masts of ketches intended to go to sea for long periods where hard weather and rough seas must at times be anticipated.

"The mainsail, aside from being rather heavy to handle on a boat of *Vamarie's* size, goes up and down like a lamb, in port, dead to wind and in smooth water. At sea, in a breeze, with rough water, especially off the wind, it is the most contrary contraption to handle, with the exception of a real parachute spinnaker on a "J" Class yacht, that it has ever been my misfortune to be shipmates with. Primarily it is the sail, owing to its high center of effort, that should be considered when first reducing sail. On the other hand, as it is such a large factor in the total sail area, one usually carries it too long, with the concomitant result of increased difficulty in handling.

"The gaff, in any seaway, must be steadied with a vang — more nuisance than a sheet — so that in handling there are the main halliards, a tack purchase, the main sheet, a clew outhaul, a clew downhaul and a vang which have to be manned.

"Further, it seems hardly seamanlike to have to depend on a single part wire main sheet led to a sheave at the mizzen head, where it is subject to constant shock and jerky strains. If it parts in a seaway I can see no way of reeving off a new one before the wildly swinging gaff will have demolished itself, if nothing else.

"As for the rest of the rig, the spars are amply heavy, extremely well stayed; so much so that there is some difficulty in taking care of headsail and staysail sheets on varying points of trim; and the absence of all purchases or winches for runners or backstays is, of course, a great blessing.

"Owing to the high percentage of hoist to base of the fore triangle, a spinnaker, with much less hoist, in spite of loss in allowable untaxed area, should prove much more efficient."

Undoubtedly, some of the features of the rig that proved difficult to handle will be improved as time goes on and we become more familiar with the problems they involve. The point of this analysis of some of the drawbacks that the use of the rig involve, is to give those considering adopting the main trysail an idea of what the change may mean in the matter of handling under conditions offshore.

Forty Years of Progress

(*Continued from page 59*)

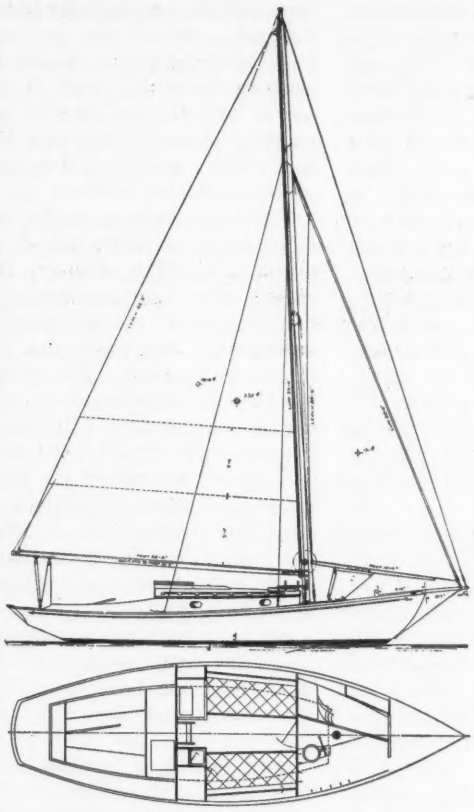
cushioned seat against the taffrail. Tea was served there in pleasant weather, under the awning that ran the whole length of the yacht. Her speed might be anything up to twelve and one half miles an hour for a fast boat.

Smaller than the yacht was the pleasure launch, often an open boat, sometimes one with a standing roof with a scalloped frill of striped canvas along its sides. She generally had a vertical boiler and a single cylinder engine, and she chugged along at a speed of seven miles or so. The larger boats had cabins. Being a steam vessel, she had to be handled by a licensed pilot and a licensed engineer. Some men went in for speed and built fast 30-footers that, to the dismay of their owners and designers, insisted on planing.

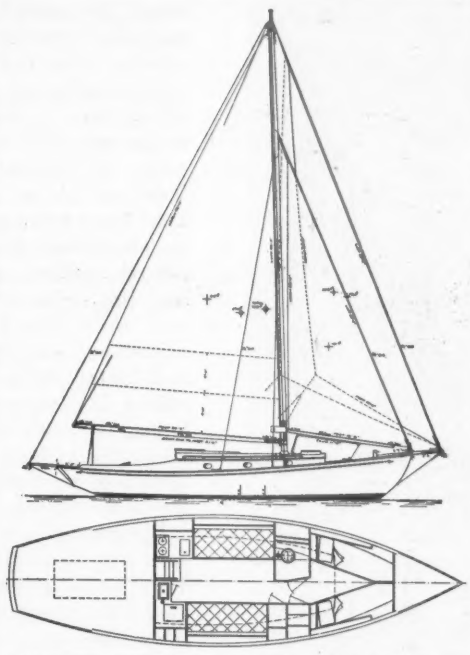
For those who wanted to get away from steam there was developed the naphtha launch. Her three-cylinder radial engine used the vapor of naphtha expansively as in a steam engine. Naphtha was heated in a boiler and there was a condenser along the keel so that the working fluid was used over and over, part of it being burned under the boiler. The fuel was carried in a tank in a compartment in the bow, bulkheaded off from the rest of the boat and open to the sea, and the feed pipe ran outside of the hull from tank to abreast of the engine. The engine could be started in a few minutes and the naphtha launch and her imitators that used alcohol and other fluids were exceedingly popular forty years ago. The smaller sizes were used as tenders on the larger yachts.

While the earliest naphtha launches were small, the convenience of the new power appealed to many owners, particularly because licensed operators were unnecessary either for boat or engine. Larger boats were built and fitted as cruisers, some of them being 70 to 75 feet long Most of them were of the glass cabin type which, while leaving something to be desired as regards seaworthiness, made for a fine, light and airy cabin. And,

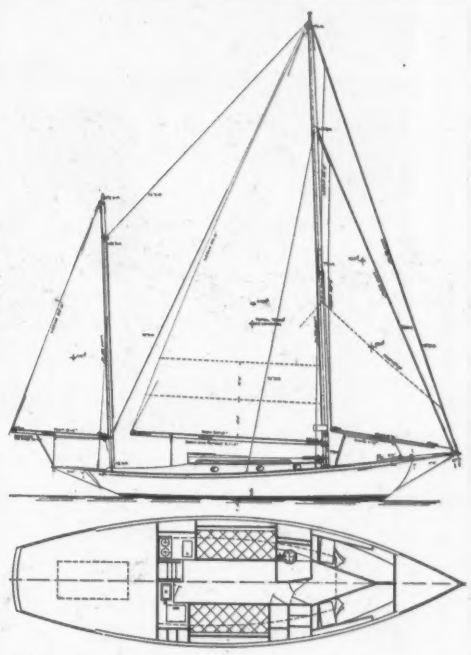
Brand New Alden Cruisers ~ *Now Building for Early Spring Delivery*



SLOOP 30′ 9″ OA 23′ WL 9′ 8″ Beam
Auxiliary 5′ Draft 5′ 9″ Headroom



CUTTER 35′ 10″ OA 27′ 10″ WL 10′ 5″ Beam
Auxiliary 5′ 3″ Draft 6′ 1″ Headroom



YAWL 35′ 10″ OA 27′ 10″ WL 10′ 5″ Beam
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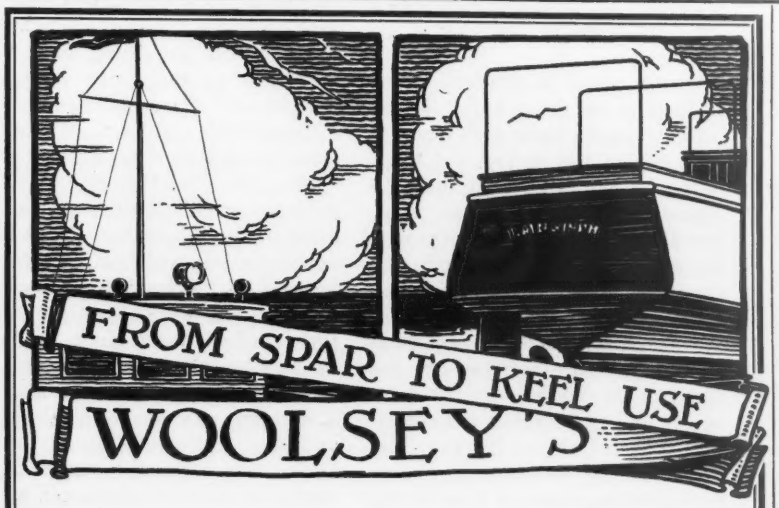

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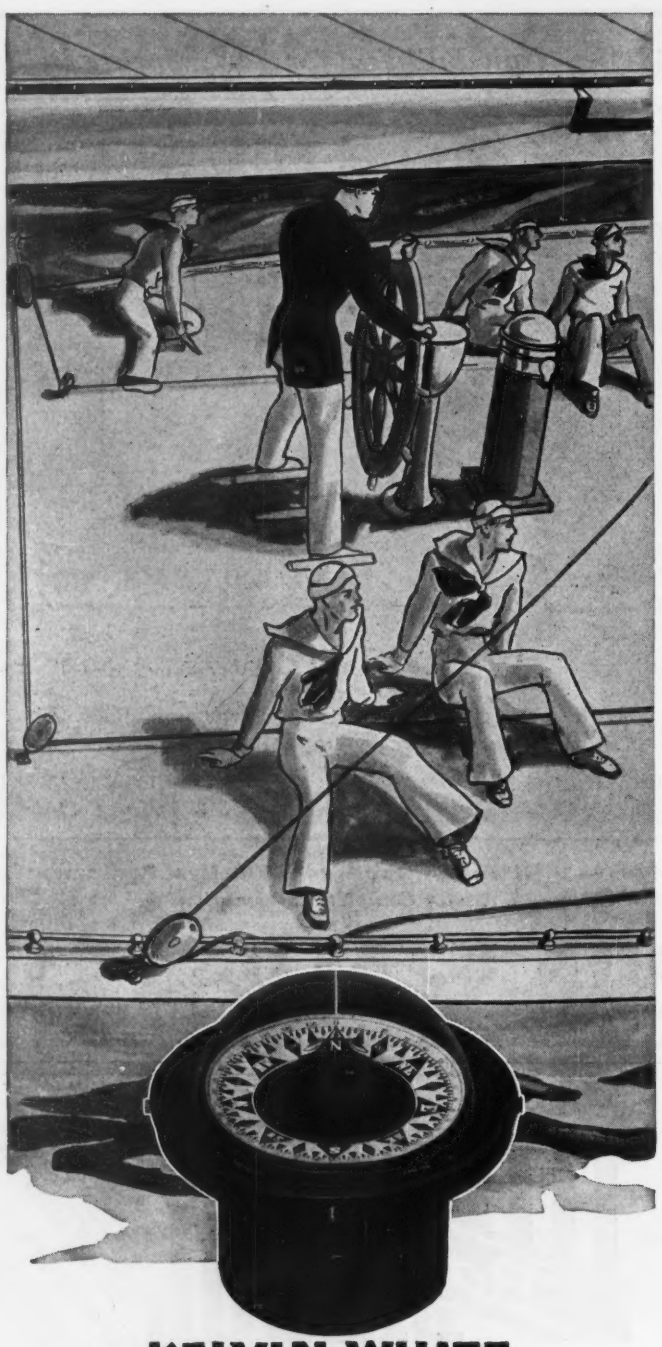

KELVIN-WHITE
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THE motor replaced the horse; electricity replaced the candle; the skyscraper replaced the log-cabin; and the modern Kelvin-White Spherical Compass replaces the old flat-top type compass. All were good in their day, but something better has always replaced them.

Today, the Kelvin-White Spherical Compass stands supreme as the modern compass at its best — the recognized leader. It is already accepted as standard for the U. S. Coast Guard, the American-Hawaiian Line, and many of the world's finest pleasure and commercial craft. All types of vessels in all types of service have definitely demonstrated its superiority over the old flat-top type.

It is the new choice of the old timers.

The bowl's spherical shape neutralizes the ship's motion and assures a steady card at all times. The hemispherical glass dome, plus the liquid, magnifies the card to about twice its natural size and makes for greater visibility — where you want it most.

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with the engine tucked away in the stern, almost on top of the stern-post, they had an unusual amount of room for their inches. A 65-footer, for example, would have a short deck forward surrounded by a polished brass rail and a deck aft with a similar rail. The pilot house might have a couple of transom berths and next to it would be a saloon with two more berths. Then there would be a stateroom, a toilet room and a galley. Berths for the crew would be arranged alongside the engine, under the cabin roof but in a compartment with open sides. The boat herself was narrow and lean, with plumb stem and fantail stern and her speed, with a 16 horse power engine (the largest size made) might be eight or nine miles an hour. Slow? Yes, for nowadays, but pretty fair speed for the "Gay Nineties."

But such a boat was then rather a modern type; the average small yacht aped her big sister and was built with clipper bow and counter stern, with two masts and a tall stack raked at an exaggerated angle, a house forward and a long, high, trunk cabin. Many of the glass cabin boats carried stubby bowsprits and slim broomstick masts from which were flown all the flags and pennants of the big steam yacht. And what sticklers for etiquette some of their owners were, careful to have absent flag and meal pennants flown at the appropriate times and saluting the port with a gun on weighing or letting go anchor.

The modern yachtsman might hesitate about going anywhere except in smooth water with many of the craft of the period, yet those narrow, glass cabin boats used to make long cruises and at times faced bad weather without accident. Most of them were well built and they were not loaded down with all the fittings and gadgets carried today. Their interiors may have been in terrible taste, carrying out the worst of the Victorian tradition — sailors and shipbuilders are notoriously conservative — but they had no mechanical refrigerating plants, no electric capstans or boat hoists, storage batteries were few and far between. Running water was a luxury.

The cruising boat was slow and the fast boats were steam-driven craft whose designs, both hull and machinery, were based on torpedo boat practice. Machinery was heavy compared with the internal combustion engines of today, total machinery weights running from 65 pounds and up per indicated horse power in a torpedo boat to from 90 to 190 in a naval launch. Boilers were of the water tube type and so lightly built that they were worn out after three or four years' use while the engines were of special high speed design and of light weight. Such boats were all machinery, with a "dog kennel" forward for the crew and a cubbyhole aft for the owner. The steam commuter developed into a young torpedo boat, and some remarkably fast and successful craft of the type were built before the internal combustion engine sounded their knell. A number of owners commuted in their seagoing steam yachts and there used to be a notable fleet gathered off the Battery in summer.

The early gasoline engine soon killed the small steam launch and also the naphtha. Though these engines were temperamental, they had the power in small space and weight and soon made the older machinery obsolete. The gasoline launch of 1904 or thereabouts was a narrow boat, say forty feet long and five wide, with a short deck forward and aft and the rest of the boat a huge open cockpit. The engine sat out in the weather in the middle of the boat. It was hand starting, of course, and subject to unpredictable fits of the sulks.

Just as the early naphtha launches copied the steam yacht, so the first of the gasoline boats aped their predecessors and were built with glass cabins. They had plumb, clipper, raking or modified spoon bows and all sorts of sterns, fantail, counter, torpedo boat, whaleboat, Normand, row boat and "corset." We still thought that length on the water line was the important thing, not realizing that a fast boat wanted to plane. And it was some time before we found out that the square transom was the thing, that we needed a square corner between bottom and transom to make a distinct break and let the water go clear and not climb up the hull.

Then the "hunting cabin" (the sail boat's trunk cabin transplanted) came in for the cruiser, and later someone thought of raising the deck forward to the level of the cabin top. Cockpits were open for a long time, shelter being given in bad weather by folding hoods of melon form. Then some brave soul added a standing roof and a windshield and later, much later, came deck-houses and forward cockpits and bridge decks. Beam increased, with much better room below, and all the time speed went up. There was a time when we wore our caps backwards in twelve-mile "express cruisers."

And all the time the power plant was getting better and better. Weight and bulk grew less, revolutions increased — 800 r.p.m. was astonishing in 1904 — and the power output grew larger. Vibration was minimized and noise conquered. Improvements in carburetion and lubrication were made and metallurgy supplied new alloys. The engine of today has come as far from its progenitor of forty years ago as has the modern motor yacht whose design, in turn, the internal combustion engine has revolutionized.

"Director" Hoists the Tricolor

(*Continued from page 88*)

with Hey Hey clinging to the wheel box with his knees like a jockey.

"We sure are devouring miles!" he cried, his eyes glued to the compass.

"I told you to call if the wind increased!" Bruce shouted over the wind.

"I thought you said 'decreased!'"

We were going too fast. Dennis' sight on Arcturus placed us close enough to be wary. Bruce called the skipper. Sheridan, wrapped in a *pareu*, came on deck. From habit, he turned his back to the wind and looked at the binnacle, waggling his head to get his ears on the breeze.

"Call Denny!" he said.

Dennis piled out in the dark and Tehati came aft asking in his part French, part Tahitian speech if this was "Monsieur Horrocane!"

George and Hey Hey got on the sheet while Sheridan held the wheel with one hand and the gaff downhaul with the other. Dennis was taking up on the weather lift and from aft came the shout to let go. The sheet was fast and Hey Hey hooked the guy tackle back on the boom and drew it taut. Bruce and Tehati eased the halliards 'round the kingposts for a few feet until the strain was off, then cast off to speed up the drop. The throat was slow.

"We'll need more grease on that soon!" someone said.

"Damn that gaff! It certainly likes to wave around on the way down!" said George.

"Bundle it up!" Sheridan yelled.

"Bundled, she is!"

When you haven't done it, it's hard to picture the scene on deck when sails are being shortened at night, especially when there is no moon. There isn't half the shouting and ordering one would expect. All maneuvers, after a ship has cruised a long way, are performed almost automatically. One chap picks out a halliard or a lift and goes to it. Strangely enough, no one else has picked the same one. Those at the mast, easing the big sail down, *feel* that all is ready aft. Someone else, promptly, has thought of the weather lift and has gone to it in time to keep the boom from sweeping the gallows frame overboard when the big spar comes in.

When the canvas is down, Sherry has stopped the waving gaff by taking a turn of the downhaul 'round the main sheet bitts. He stands aside for another to step up on the box for the snugging down. When you reach over the boom, you are sure another of the crew will hand you his stop. Then, when you put your foot on the sail and draw up, you know your friend in the dark on the other side is doing the same thing.

The ship rides easier, and the wind always seems to have eased up a bit.

The jib was taken off after that. Then the trysail was dragged out and hung on the mainmast. Our speed, we decided, was conservative now and, while the watches strained their eyes and no one slept too well, it wasn't until dawn that we saw the Eden for which we had been thirsty and tired and hot and cold for over a month at sea.

When the tall spires and green stripes of Hiva Oa came out from their mantle of morning mist, we felt like part of a Maxfield Parrish painting, six voyagers in a tub blowing in from a cerulean sea in a fuss of sound and pearly spume. Dennis hummed a quaint old tune of English sailormen. Sherry had an Irish twinkle in his Prussian eye, George looked silently and long, Bruce paced the deck more restlessly than ever, José tried to imitate a canary, Hey Hey sat out on the bowsprit, his legs wrapped around the furled jib, his mind far away from the breakfast he should have started half an hour before. Tehati had a strange look in his eyes. We couldn't make it out.

All the morning we coasted the steep cliffs on the northeast side of the island, and got a final good rolling from the heavy swell.

In the afternoon someone cried: "I see a house!"

Then from below: "Is it made of grass?"

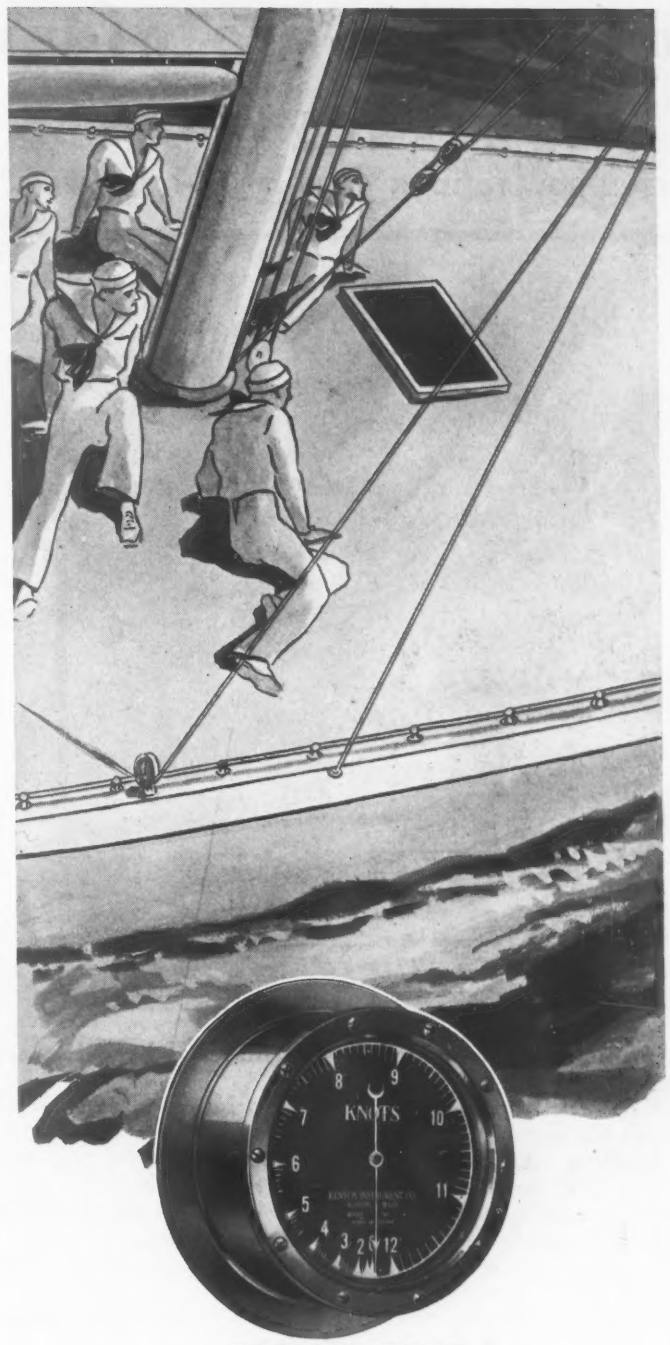
Then another: "I see a girl with a *pareu!*"

And Tehati ran aft excitedly pointing to a deep vale that cut the rough coast to run far back into the hills. He explained that he had been born in that green valley.

And then we rushed along with more wind and still more wind to round Punahe Point and Plate Point in Vipihai Bay. Hanake Island stood out from the green blur at last and we saw white houses in Atuona. Mount Temeti loomed fierce and bleak and black over all as we slid into Taa Huku Bay where our chain ran out in five fathoms. Our backed squaresail came down as we lost headway. The main and fore were snug on their booms. We put the awning up and for the first time knew that it was hot. The palm-filled valley of Taa Huku steamed as jungles in tropical dramas steam. We were in the South Seas! Sweet shades of Stevenson and Loti, Cook and Bligh!

Bruce pointed to the impressive wonders in scenery with the enthusiasm of a Chinatown sightseeing spieler. Sheridan said: "I wonder where the store is — I want a feast tonight!"

Dugout canoes crowded 'round



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YACHT sailing is an art whereby the sailor, using the forces of nature, is enabled to sail his yacht, but the results he obtains from trim of sails, or course steered, are all guesswork unless he has a Kenyon Speedometer to give him an immediate and accurate check on the speed of his vessel at all times. This invaluable instrument eliminates conjecture and sheds new light on the driving power of sails and rigging. It proves or disproves your ideas of sail-trim in racing. It is more useful to sail racing than is the stopwatch to horse racing.

The perfected Kenyon Marine Speedometer Log records the speed and distance covered at any time.

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The broiling sun soon dries up the natural skin oils and makes men and women look old before their time.

Shaving that takes the oil out of *your* skin acts in much the same way as a tropical sun or a frigid winter wind.

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us and one old woman with *fei fei* cried copiously upon seeing Tehati. He explained to us, after a long conversation in Marquesan, that his father had died in his absence and that he, Tehati, owned the greatest copra producing valley in the Marquesas! We had a landed prince in our midst! The next few days proved our luck. Tehati loaded us down with every fruit, meat, or wine one may find in the group.

To a stranger who knew ships, coming over the trail from Atuona, *Director* must have been quite a shock. The old Down East cut of her bow and her counter and the rake of her slender masts was entirely different from the square, box-like schooners from Papeete. She lay there, rolling easily, in from the troubled sea, untired, but sleeping. She had done her four thousand miles of westing and we were loath to ask more—for a time at least.

Salute to Anacapa

(*Continued from page 78*)

were dropped. The helm came hard astarboard, and *Stormy Petrel* set out to investigate. Yes! She was the *Pandora*, of "Mutiny on the Bounty" fame. Stick for stick, yard for yard, she had been rebuilt from the old *Nanuk*. Here she was, slamming along with sails furled under the urge of a Diesel. Out came the camera. What a sight! It mattered little that her sails were furled on her yards, or that she was making as good time under power, even better, than we were. We snapped until everything but a bow view was obtained. Then *Stormy* tried to catch her, but the "dink" held us back, and so we gave up the thought of a pictorial coup.

Time had slipped by, and we decided to pass up San Lucas and head for Albert Anchorage, on Santa Cruz. The wind was freshening and the sun track danced dotted gold in our wake as we bore off for Gull Rock to make a night of it. San Lucas, not much to look at, is a sandy island on which, sixty or seventy years ago, a giant rookery of sea otter existed.

I had the typewriter lashed to the galley sink, the better to keep a running log of the day. It was the best place to sit and type, for Collinge has a seagoing gadget from hell sitting right in front of his galley. It is a stool. Try to pick it up — you can't do it. Slide it anywhere you want — it stays put. A huge coil spring between the seat bottom and the floor hook does the trick.

My entries record that we made Willow Harbor at 4:23. The wind blowing down from the hills was warm now and *Stormy* took the swells with a loping gait. When we rounded into the harbor at Albert Anchorage the sun was disappearing behind the high range of hills and the water was deeply shadowed in blue.

At this juncture we had a problem to face. The skipper was in doubt as to the bottom; the lead line gave about seven fathoms at one end, and nothing reasonable at the other. A westerly, hot and brisk, blew offshore. Would it shift? Increase? The double anchor idea was finally hit upon. The ship and her gear were stranger to me than to Collinge, so I backed and filled while he bent on a chain to the anchor which was to head for the unknown end. The forward hook was dropped, but in the wind from astern the ship would not back squarely, and he piled the stern hook into the "dink" and dropped it a good way inshore. If either let go, we would still be sure. As things turned out, the wind gave us a lee anchorage all night long.

We had supper — huge, heroic servings. And then, like a firecracker that shoots, pouf! the sun was down and blackness enveloped us. So the night descends in southern latitudes. One moment it is light, you can see the purple outline of things ashore; you go below for a moment and when you come on deck again it is starry black.

I stretched out in the cockpit, bathed in the warm darkness, and watched the stars overhead. There was no moon, but the brightness of the starlight was amazing. It was the first time that I had ever seen starlight bright enough to rival the moon in making a path on the water.

We awoke next morning to the same gentle sun, and after a rousing breakfast we were off for the run to Anacapa and a salute to the light keeper. *Stormy* would then head for the home moorings.

During the day a fresh wind made up, but we ploughed through the kelp to Anacapa. Outlined against the 400-foot cliffs that form the eastern end where the light is perched, Collinge "snapped" *Stormy* so that you might see the forbidding ledges and cliffs of the island. We ran the channel side of the islands midway of Santa Cruz, passing China Harbor, where the junks and whalers used to haven, and at 3:00 p.m. we headed for Santa Barbara. We picked up the groaner in the dark dribble of lights and found the opening of the breakwater.

The skipper went ashore and I turned in. As I mused over the events of the last two days, I could see, hull down to the southeast, the mighty wink of Anacapa, a flash every twenty seconds. It was only a few hours since we had passed the light, but the great promontory of rock seemed far away. Again, I saluted the light keeper, and fell asleep.

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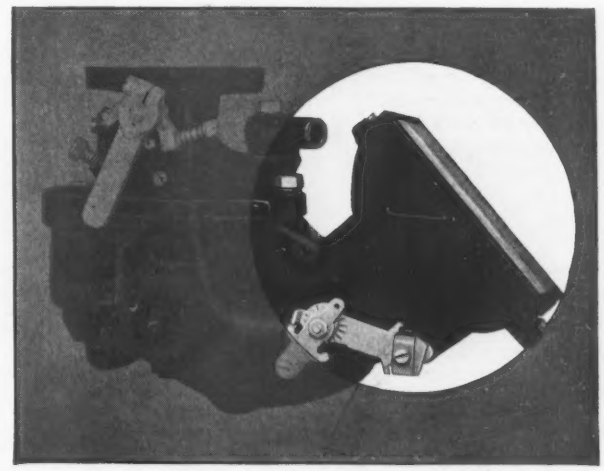

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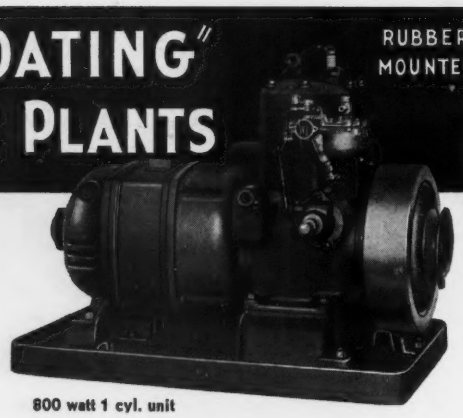

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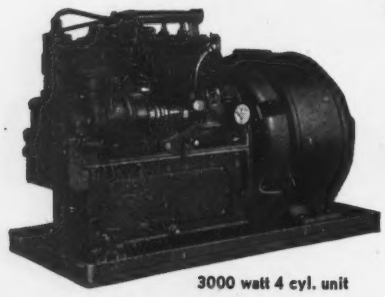

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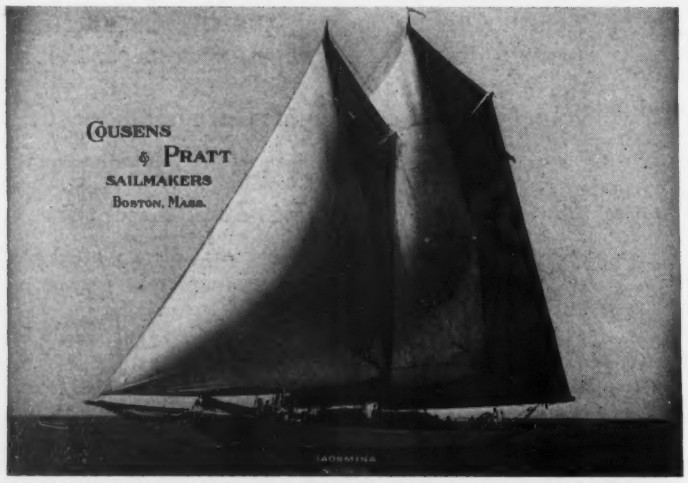

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"Goodbye to All That"

(*Continued from page 70*)

throw away distance that we don't absolutely have to. Did you get a bearing on those rocks before the fog shut in?"

"Not a very good one," said Bridwell, the navigator. "You see, I was figuring out when the tide would turn, which seemed the most important thing at the time, and — "

"In other words," said Doug, "you fell down on the job and don't know where we are. Is that it?"

"N-no," said Bridwell. "I'd say knock her off a couple of points and make sure."

"Exactly what is the danger?" asked the owner, standing unobtrusively on the edge of the circle of his crew. "And how much would we lose if we sailed around the rocks?"

"The danger is that we'll hit a rock and tear her bottom out. On the other hand there's no sea and if we did pile up there wouldn't be much personal risk. Under the circumstances I say we take a chance and sail the course."

Caz heard Doug's decision in silence and started forward. But he turned after a couple of steps and came back. "Do you object," he asked, "if I go up to the bow and keep my eyes peeled? I might possibly see something before we hit, and while I don't mind the expense of going aground I would rather like to get home to my wife some day."

"Well, you can keep your eye peeled without being a sissy," said Doug, heartily. "Bud, you man the lead and the rest of you in the watch below stand lookout duty."

Bud found the leadline in a snarl and when he had cleared it and made his first cast he got three-quarters of a fathom about two feet out from the starboard side of the boat. As the *Calliope* draws seven feet his sounding gave us all a terrible scare; but fortunately the fog lifted just then and with a quick glance around Bridwell assured us that we were out of danger. Caz looked astern and when I noticed his jaw drop open I followed his glance to see what it was that had frightened him. It was a line of boulders irregularly spaced at about twenty-foot intervals extending about a quarter of a mile out from the beach. We had come through the center of the line without even touching.

"I'll be glad," said Caz, quietly, "when we get out to sea. I think I'll like ocean racing better than this."

IV

As to that Caz was wrong. He didn't get sick as so many beginners do, but practically everybody else did, including Doug, and the main saloon was what you might call a shambles. Somebody lurched against the table and tore it adrift from its fastenings, and to keep the boys from being hurt we had to heave it overboard. This happened after we had got out near the Sawpit Lightship where the wind was blowing half a gale and the sea was kicking up.

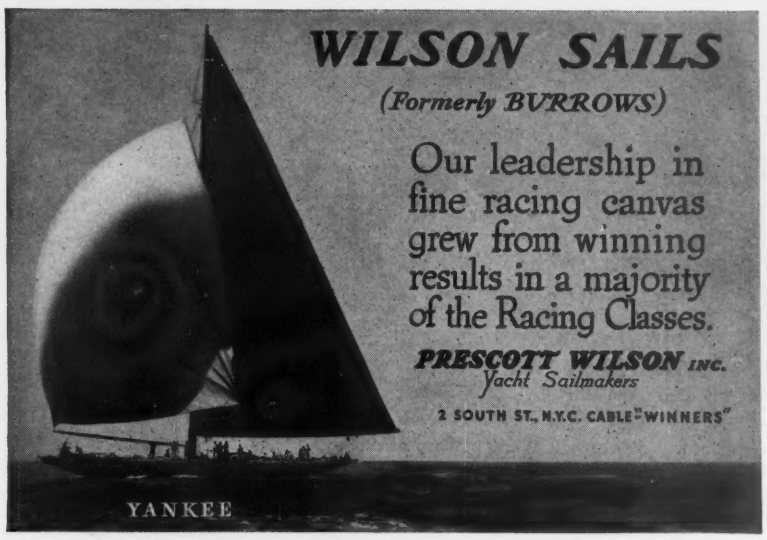
Before the boys passed out we got the mainsail off her and the trysail set, but in the process the brand new mainsail got caught in the lee spreader and tore a hole in it as big as a barn door. Caz took that mishap goodnaturedly, saying that he was fully insured, but I must say he looked kind of thoughtful when I told him that his sails weren't insured while racing. However, he was a good sport, even after he had digested the bad news, and kept the helm, steering badly at first but getting the hang of it as the hours went by, while I sewed up the tear.

All hard times come to an end, and with the exception of the cook the crew snapped out of it when we got back to sheltered water. By this time, of course, everybody was speculating as to how we were making out against the other racing boats, and when, about four hours from the finish line, we saw our most dangerous competitor hung up on the very ledge that had almost got us, our elation knew no bounds.

"That's an example, Skipper," said Doug, "of the importance of having a good crew on board. I happen to know that those birds are most of them rank novices. Well, it serves them right, cutting corners. And it looks like you'd have a nice silver mug to remember us by."

As this is not a story of a yacht race with first one boat drawing ahead and then another gaining slightly, etc., etc., I'll cut it short by saying that the old *Calliope* won with a couple of hours' grace. We were a bit worried when we broke the pole and ripped the second spinnaker setting it for the run to the finish line, but we had two hours to spare and didn't really need the sail.

After we got the hook down and were sitting around in the cabin congratulating ourselves, some of the ex-dead ones noticed that the table was missing and were disposed to blame Caz for throwing it overboard. If he had only taken a little trouble, they told him, he could have lashed it out of harm's way, and we'd have it to place bottles and glasses on when visitors came aboard. Caz said his only regret was that we'd have to hold in our laps the bang-up dinner the cook was going to serve us when he regained consciousness; and he went on to say that he had enough delicious fresh food on board to feed an army. He added bashfully that he supposed they would all continue



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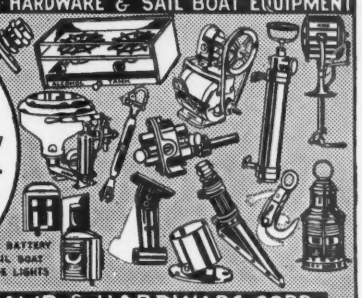

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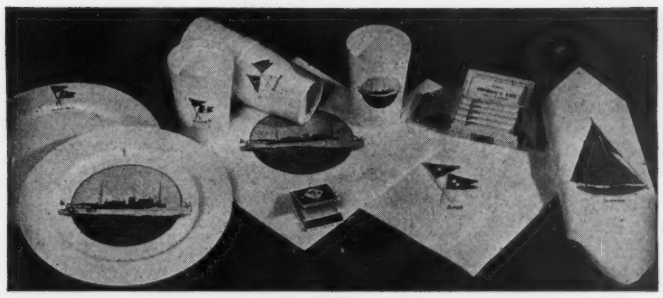

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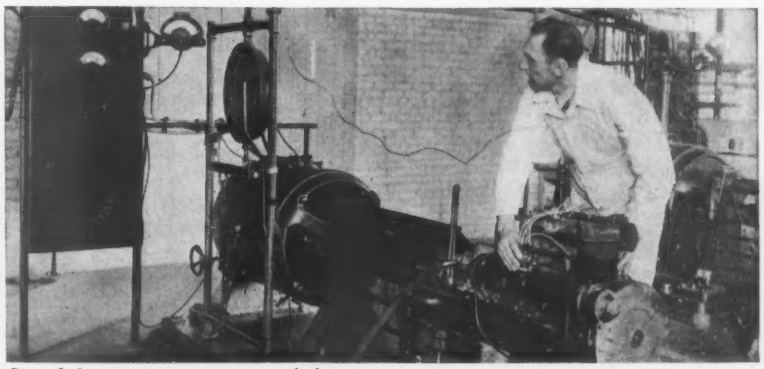

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to be his guests while he was putting the boat to rights, drying cushions and blankets, cleaning the interior paintwork, and so on, and that he hoped so because it would be an awful pity to have all that good food go to waste.

I think it was Bud Elwell who voiced the opinion of the crowd on this matter. He said they were delighted to have won first prize for Caz and that Caz needn't think he owed them a thing for their services. But that it *was* Sunday afternoon and the next day would be Monday, with attendant cares, and so if Caz didn't mind too much they'd prefer to have dinner at the yacht club before shoving off for home. Doug added on his own account that Caz could set an example by taking some of the Madeira ashore and that the rest of them would take off his hands a few bottles of the hard liquor which he didn't like. And they would all drink to the *Calliope* and the next ocean race.

Caz is a quiet man, as I think I may have indicated, but he does not lack determination, and when the club launch came alongside with his dinghy and the boys got ready to shove off, he refused to go with them. They could sign the chit for dinner in his name, he said, but he really thought he ought to stay on board and put the covers on the sails and things like that. It would be a pleasure to do something on his own initiative, he said, diffidently.

So off they went hilarious, singing "For he's a jolly good fellow," and when we were alone, except for the cook who had come to and was frying eggs in the galley, Caz put his hand on my arm and spoke from the bottom of his heart.

"Shipmate," he said, "this has been a wonderful experience. I haven't said much, but I've learned a lot from having all those swell guys on board. And I've certainly learned everything I want to know about long distance racing. So do you know what I'm going to do now?"

"I couldn't guess," I told him.

"Well," said Caz, a far away look in his eye. "I'm going ashore to find out whether I still have a wife, and if she hasn't divorced me she and I will take a comfortable little cruise together. She always used to think I amounted to something. And" — he stuck out his chin and looked fierce — "I'm not going to ask anybody's permission to change the name of my boat from *Calliope* to the title of a book I once read."

"It's bad luck," I reminded him.

"Call it a change of luck," said Caz. "I'll name her *Goodbye to All That*."

Boats for Big Game Fishing

(*Continued from page 67*)

place and making everything tight with pitch or asphaltum. Holes bored through the bottom of the boat and screened with netting permit the water to enter. If one set is provided with a scoop facing forward, the motion of the boat will create ample circulation to keep bait alive. It is difficult, however, to make a tight bait well in this fashion. Market fishermen do not mind a little water slopping around in a boat; they are accustomed to it and to pumping a boat, but the average yachtsman objects to water in the bilge. It is, therefore, customary to take more pains in making a bait well for the sportsman's boat. It should be galvanized iron or monel metal — copper should be avoided as it is poisonous and will kill bait within a short time. Circulation in a bait well of this character is sometimes obtained by a separate electrically driven pump or by a pipe carried to scoops on the outside of the hull. In the smaller boats, separate pumps are usually troublesome and should be avoided if possible.

When a fishing boat carries enough power to make the 18- or 20-mile speed required by most owners, the problem of running the boat at a slow trolling speed for hours at a time is a serious one. Gasoline engines foul spark plugs, pump oil, and carbonize combustion chambers when run for long periods at greatly reduced power. Diesel engines show the same tendency. It is not considered advisable to run a Diesel engine for any considerable length of time at much under forty per cent of its normal power.

Different schemes have been tried, both with gasoline and Diesel engines, for overcoming this difficulty of trolling at slow speed. Some boats have been built in which small auxiliary engines were installed. The main engine may develop as high as 150 or 200 horse power; the trolling engine may be of ten or twelve horse power. In a few cases the small engine was coupled to the main propeller shaft through a train of gears or by sprocket and chain to turn the main shaft at slow r.p.m., the main engine being idle with its clutch in neutral. Other installations have used small folding propellers directly connected to the little auxiliary engine. Either method is rather troublesome, expensive, and takes up considerable space in the boat. The better way for the ideal boat is to install twin or, even better, triple screws. This not only gives the desired reduction in speed when running under one engine and dragging the other propellers, but also is a fine safety factor when one considers that these boats may go thirty or forty miles offshore.

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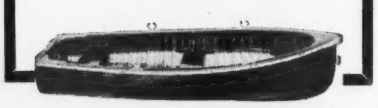

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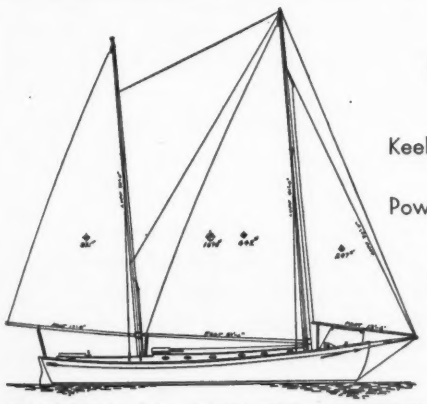

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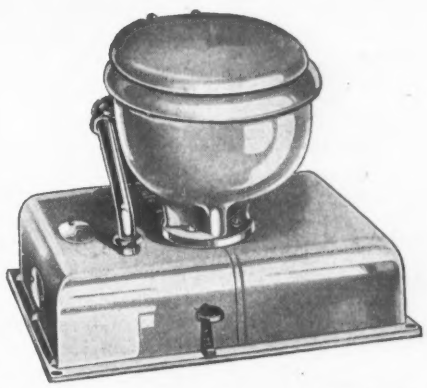

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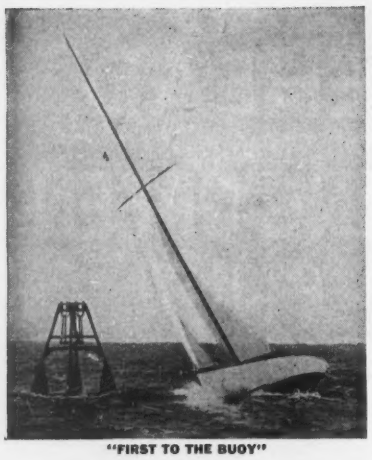

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Bait wells have been mentioned but nothing has been said about taking care of the captured fish. This depends entirely upon the size of the fish compared with the size of the boat. To attempt to get a half ton tuna aboard a 20-foot open boat is obviously out of the question, and under these conditions the usual procedure is to tow such a monster ashore, keeping off sharks, if that is possible. On the larger boats, the boat davits are sometimes strong enough to lift the prize fish out of the water. The "small" fish of 200 or 300 pounds can be taken aboard over a roller mounted across the top of the transom, a device which is found on many of the fishing boats of today.

In general, avoid all deck fittings aft, omit bitts, cleats — everything which might tangle the angler's line and cause him to lose what might be the record fish of the year.

The Auxiliary Yot "Gulf Dust"

(*Continued from page 86*)

side ballast. The most delicate operation was that of drilling a 7/8" shaft hole a distance of twelve inches through the 1¾" pine sternpost at the exact angle we desired and dead through the center, regardless of numerous garboard fastenings. With much patience, more sharpening of the drill and much more luck, the drill point came through *exactly* on the spot.

The little hull is as solid as that of a Scoweegan lifeboat. The pine keel stands on edge and measures 1¾" by 8" with the frames and floors notched into the top. Stem and sternpost of the same material are joined to the ends of the straight keel by wedge-locked scarfs without fastenings. The frames are sawn cypress 1" by 2" and spaced 9" on centers. Planking is finished anywhere from 3/8" to 5/8" and the seams were so neatly fitted that caulking was not used. Stem and sternpost are rabbetted, but not the keel. The beams we added are 7/8" by 1½", and the deck 3/8" covered with canvas laid without cement.

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After several weeks of spare time work, *Gulf Dust* was launched with as much ceremony as a battle wagon. Masts, spars and rigging in place and bedecked with colors, the yot was christened with a 50-50 blend of water and rum and launched ominously in the smoke of a screaming squall!

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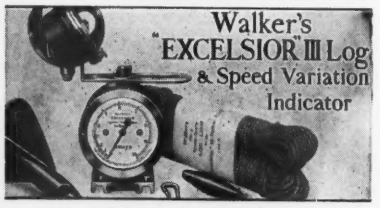

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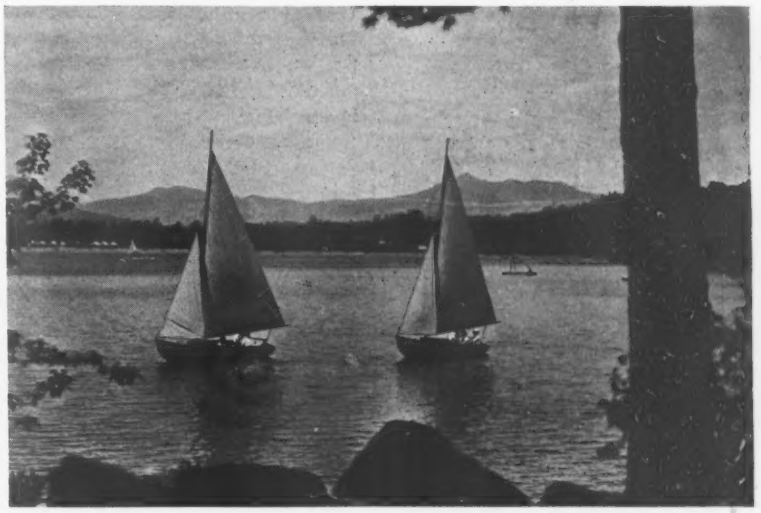

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Fifteen Years of the Six-Metres

(*Continued from page 64*)

had been purchased by Henry L. Maxwell.

The improvement in the American boats was reflected in the results of the 1922 team race, which the Americans won, 111 to 104. Not an overwhelming margin, but enough.

After the feast of 1922, there was a famine in 1923, only two boats being built. Henry Plant's *Ingomar* eventually was sold to an English yachtsman, and *Hawk*, her contemporary, remained here to make a name for herself on the Sound.

At Cowes again, in 1923, the British had all the best of things. They defeated our team 129 to 86 and thus inspired American yachtsmen to do something about the situation before the 1924 match. Eight boats were built. Of these, Clinton Crane's *Heron* proved outstanding in heavy going and generally good under most conditions. She was a team member for several years. William Gardner's *Dauphin* worked out well and was a consistent performer. Other boats that came out in 1924 were *Madcap* and *Firefly*, both now on the Lakes, *Paumonok*, *Iris*, *Natka* and *Romany*.

Despite this effort in 1924 we could not save the first British-American Cup. Conditions of the competition were altered so that instead of adding up points for six races to decide the winner, the match went to the team winning four out of seven races. The Britishers did just that in the series off Oyster Bay and retired the trophy.

Thus ended the first phase of the Six-Metre Class in the United States. Twenty-seven boats had been built in the period from 1921 through 1924; four matches were sailed for the British-American Cup, and the new "Sixes" invaded the realm of Seawanhaka Challenge Cup competition. The Scottish entry *Coila III* had beaten *Sakie* for this trophy at Marblehead in 1922 and successfully defended it at Rothesay against the 1923 challenge of *Lea* and the 1924 invasion of *Unni*, a Norwegian boat.

The credit for introducing the Six-Metres in this country and their early development obviously belongs to the Seawanhaka Corinthian Yacht Club. Its energetic sponsoring of international small boat racing started things, and kept them going. The more recent history of the class reveals how diligently Seawanhaka has kept the light burning, even during the darkest depression years.

With the building of *Lanai*, from Crane designs, by a Seawanhaka syndicate in 1925, a new era began in American Six-Metre racing. *Lanai* was an unqualified success. She went to Scotland and beat *Coila III* in a four-race series for the Seawanhaka Cup in 1925. In 1926 she made a trip to Scandinavian waters and under command of Herman F. Whiton won the Gold Cup, something no other American boat has done since.

Lanai's triumph proved a bonfire in stimulating interest in the class. No "Sixes" were constructed in 1926 but with the Swedes, Danes, Finns and Norwegians coming over in 1927 to try for the Seawanhaka and Gold Cups, American yachtsmen built five new boats — *Frieda*, *Clytie II* and another *Priscilla* (later *Alerion*) from Mr. Crane's board; *Picaro*, designed by Fred Hoyt, and *Atrocia*, somewhat of a freak in rig, developed by Sherman Hoyt and Henry L. Maxwell.

Clytie was selected to defend the Seawanhaka Cup and was beaten in a five-race series by *Noreg*, owned by Crown Prince Olaf of Norway and sailed by Magnus Konow. The Swedish entry, *Maybe*, sailed by Sven Salen, won the Gold Cup. West Coast yachtsmen, beginning to take interest in the class, were so impressed that they bought *Maybe* and *Ay-Ay-Ay*. Obviously, the Scandinavians had learned something about Six-Metres which had escaped us. They made good use of overlapping jibs, which we now know as Genoas, but which are often called Swedish jibs.

In 1928 Clinton H. Crane took *Akaba* to Norway and with her won the Seawanhaka Cup, sailing against *Figaro V*. That same year the British-American Cup matches were revived, the Royal Northern and Royal Clyde Yacht Clubs of Scotland joining the original signatories. A new agreement provided for biennial races alternating between this country and Great Britain. In the first race for the new trophy, held off Hunters Quay, Scotland, the American team, *Akaba*, *Heron*, *Lanai* and *Redhead*, the latter a 1925 boat, was beaten three races to one by the British.

Wasp, the only double-ended "Six" built in this country, came out in 1928 from L. Francis Herreshoff's designs, and Sherman Hoyt produced *Saleema*, a good boat now racing on the West Coast as *Zoa*. Mark this down as the end of the second phase of the class. The picture changed again in 1930 and from that time on American "Sixes" proved superior to the output of British designers and virtually the equal of the best work of the Scandinavian naval architects.

With the beginning of the new decade, new influences came into the class and helped to shape its course through the next five years. J. Seward Johnson, of Seawanhaka, became an enthusiastic and generous convert to Six-Metre racing, and built one boat after another in his quest for perfection and the honor of places on our international teams. The Royal Bermuda Yacht

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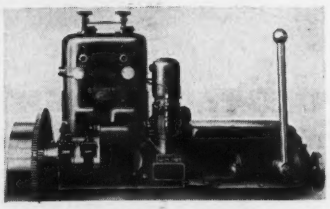

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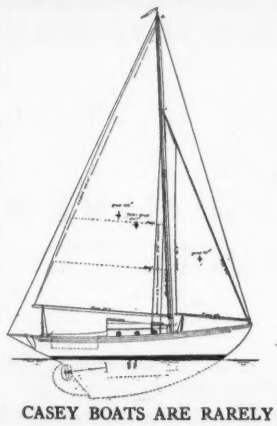

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Club took up the class, instituted the Prince of Wales Trophy series, and invited American yachtsmen to come down and race against their Norwegian-built "Sixes." Year after year Long Island boats have squared off against the Bermudians and the resulting competition for H.R.H.'s prize has been hot enough to melt the lead from the keels of the contestants. And a young designer, Olin J. Stephens II, took a headlong plunge into what every knowing yachtsman considered the severest test of a naval architect's ability at that time — the International Six-Metre Class.

Late in 1929 young Stephens designed his first Six, *Thalia*, for Lewis G. Young, of Rye. She was raced in Bermuda the following spring against the Norwegian importations sailed by Hamilton's experts and did not distinguish herself. Neither did she discourage her designer. He turned out *Mist* in 1930, another boat that might have done better under more skilful handling. Even so, *Mist* had the distinction of being the first of our "Sixes" to use a loose-footed mainsail.

Stephens produced three other boats in 1930, *Comet*, *Meteor*, sister boats for Great Lakes yachtsmen, and *Cherokee*. The first two were tuned up on the Sound and did very well under varied conditions.

The team that year was made up of *Lucie* and *Mars*, two Crane boats; *Aphrodite*, designed and sailed by Sherman Hoyt, and *Cherokee*. This team defeated the British invaders in four straight races, and *Cherokee* won the Sound championship that season.

In this third five-year phase of Six-Metre building and racing in this country, twenty boats have been built. *Cherokee*, *Lucie*, *Bobkat II*, *Jill*, *Anis*, *Nancy*, *Challenge*, and *Meteor* have all been outstanding in this crop. *Cherokee* made the British-American Cup team in 1930, won the Y.R.A. title that year, was runner-up in the 1931 Gold Cup race, and made the United States team which faced the Scandinavians in 1935 on the Sound. *Bobkat*, *Jill* and *Nancy* teamed with the Crane-designed *Lucie* to make a clean sweep of the British-American Cup races at Cowes in 1932. *Jill* won the Seawanhaka Cup from *Maida*, of the Royal Northern Yacht Club, on the Clyde later that season, and *Bobkat* defended the trophy against the Scottish challenger, *Kyla*, off Oyster Bay in 1934, after the American team, made up of *Bobkat*, *Lucie*, and two boats, *Challenge* and *Anis*, from the board of another young designer, A. E. Luders Jr., had beaten the invaders decisively in the British-American Cup series.

Jill has one leg on the Prince of Wales Trophy for Six-Metres in Bermuda, and *Meteor* won the George Cup for the Rochester Yacht Club on the Lakes last summer.

So, we find that since 1930, American "Sixes" have not lost so much as a race of any kind to British-built craft. With the Scandinavians it has been touch and go. Since 1930 our boats have repeatedly come close to winning their major trophies but have never quite succeeded. Last summer, *Challenge*, defending the Seawanhaka Cup against *Norna*, a Norwegian boat, won the series after losing the first two races. This match was followed by a team race between three American boats, *Cherokee*, *Jill* and *Challenge*, and three Scandinavians, *Norna*, and *Ian III* of Sweden, and *Dodo* of Denmark. On total points for five races, the visitors won by the slimmest of margins.

A study of the development of Six-Metre design would be too technical and too long for pursuit here, but the following table of comparative dimensions and sail areas of early boats and their outstanding successors will give the reader some idea of how the class has grown from a small, short water line boat with a big sail plan, to a long, narrow, deep hull with less measured sail area.

What will 1936 bring? We have a British-American Cup visit to pay to the Clyde, the Gold and One Ton quests to maintain in Scandinavia, and a part in the Olympic yachting program at Kiel. Then, too, Santa Barbara wants an Eastern team of "Sixes" to race their best for the Nahlin Trophy, and the Prince of Wales Cup will be in competition again in April when spring comes to Bermuda.

Year Built	*Name of Yacht*	*Length O.A.*	*Length W.L.*	*Beam*	*Draft*	*Sail Area in sq. ft.*
1921	*Montauk*	33′ 2″	21′ 2″	7′	4′ 11″	488
1921	*Grebe*	36′	21′ 9″	7′ 4″	5′ 1″	479
1922	*Lea*	31′	22′ 9″	6′ 8″	5′ 3″	518
1922	*Cygnet*	30′	22′ 6″	8′	5′	510
1923	*Hawk*	32′ 9″	22′ 6″	7′ 3″	4′ 10″	495
1924	*Heron*	32′	21′	6′ 10″	4′ 11″	483
1925	*Lanai*	34′ 6″	21′ 9″	6′ 9″	5′ 1″	475
1927	*Clytie*	34′ 7″	21′ 9″	6′ 6″	5′ 1″	495
1928	*Saleema*	36′ 9″	23′ 6″	6′ 4″	5′ 3″	450
1930	*Mars*	36′ 0″	23′	6′ 3″	5′ 3″	470
1931	*Bobkat II*	36′ 9″	23′ 6″	6′ 8″	5′ 4″	440
1931	*Jill*	37′	23′ 7″	6′ 5″	5′ 4″	450
1931	*Lucie*	37′	23′	6′ 6″	5′ 3″	456
1934	*Challenge*	37′	23′ 5″	6′ 4″	5′ 4″	451
1934	*Erne*	40′ 1″	23′ 9″	6′ 9″	5′ 5″	450

The above dimensions are from Lloyd's Register.

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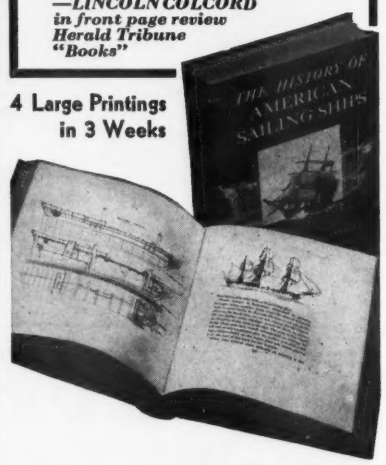

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